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TITLE OF THESIS A STUDY OF THE RELATIONSHIP BETWEEN EDUCATIONAL
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SELECTED MEASURES OF FISCAL AND NON-FISCAL
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A STUDY OF THE RELATIONSHIP BETWEEN EDUCATIONAL PROGRAM LEVELS
IN ALBERTA SCHOOL SYSTEMS AND SELECTED MEASURES
OF FISCAL AND NON-FISCAL VARIABLES

BY



LLOYD EDWIN SYMYROZUM

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A STUDY OF THE RELATIONSHIP BETWEEN EDUCATIONAL PROGRAM LEVELS IN ALBERTA SCHOOL SYSTEMS AND SELECTED MEASURES OF FISCAL AND NON-FISCAL VARIABLES submitted by Lloyd Edwin Symyrozum in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Educational

ABSTRACT

The purpose of this study was to describe the relationship between the major curricular programs provided in Alberta school systems and selected measures of demographic, wealth, fiscal effort, revenue and expenditure related variables.

The data used in the study were drawn from records maintained by the Department of Education based on information supplied by public and separate school jurisdictions. Financial records used covered the 1977 and 1978 fiscal years, and the school program information used covered the 1978 to 1979 school year.

A District Program Index (DPI) was developed as a means to describe school curricular program offerings in selected major subject areas at each grade level on a district-wide basis. Calculation of the DPI took into consideration two factors: (1) the amount of scheduled instructional time in school courses offered in designated major subject areas at each grade level; and (2) the grade enrolment of individual schools within each district. The DPI was expressed in credit-equivalent units where one credit represented 25 hours of scheduled instructional time per year.

Generally, the findings of this study show that four factors accounted for approximately one-half of the variance noted in the total instructional time provided in major subject areas, grades one through twelve. These were jurisdiction type, senior high enrolment, per pupil expenditure for transportation, and ratio of School Grants Regulations

(SGR) payments received to total operational revenue.

Of the several implications of the study, two are considered to be of major importance. The first major implication was the development of a DPI that could be applied on a province-wide basis to monitor changes in district program levels from year to year. The second major implication was the application of a statistical procedure (i.e., multiple linear regression analysis) useful in determining which individual measures, from a set of fiscal and non-fiscal variables, in combination tend to account for the greatest amount of variance found in particular district program offerings. Use of this technique could provide a central funding authority with information concerning the influence of certain factors within and outside the control of the government, at both the provincial and local levels, on district program levels.

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Chapter 1

INTRODUCTION

...The creation of educational opportunity in which every child's aspirations are checked only by his or her limitations is the ideal to which we are all committed. (Fleischmann, 1973:225)

The provision of equality of educational opportunity in publicly supported systems of education has been the focal point of school finance reform for several decades now. The worth of receiving an education has been considered to be important from at least two major societal perspectives:

First, education is a major determinant to an individual's chances for economic and social success in our competitive society; second, education is a unique influence on a child's development as a citizen and his participation in political and community life. (Cited in Cohn, 1974:295)

Since education appears to have such widespread individual benefits and national implications, Jennings (1979:403) has noted that there is general agreement that the "state must provide equal educational opportunity to its students regardless of which fiscal devices it uses to fulfill that duty."

As the trend toward further decentralization of state government functions has continued to receive emphasis in public policy formation, there also seems to have been a corresponding centralization of major revenue sources at the state level to finance programs provided at the local level. Generally, the search for more equitable mechanisms to be

used by central authorities to distribute required resources among decentralized units has taken on added importance (Wilensky, 1970:10).

According to Levin et al. (1972) and Johns (1977), the relationship between the access of pupils to educational programs and various factors related to financing education has remained relatively unexplored in studies of school finance. The intent of this study was to examine this matter in the context of the Alberta school finance plan and the major curricular programs provided in elementary and secondary education throughout the province.

STATEMENT OF THE PROBLEM

The purpose of this study was to describe the relationship between the major curricular programs made available in school systems and certain measures of fiscal and non-fiscal variables. More specifically, this study sought to describe the extent to which any of the variation found in the amount of scheduled instruction time in major subject areas provided in Alberta school systems could be accounted for by a number of selected measures of demographic, wealth, fiscal effort, revenue and expenditure related variables. For this to be done, it was necessary to develop a District Program Index (DPI) by which school program data pertaining to instructional time allocated to various subjects offered in individual schools at the elementary, junior and senior high levels could be aggregated for each jurisdiction. Thirty-two predictor variables were delineated for examination in the study following a selected review of the literature pertaining to educational finance. To complete the study, the research problem was subdivided into four distinct parts as outlined below.

Statement of Problem 1

To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the elementary level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Sub-Problem 1.1. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the elementary level?

Sub-Problem 1.2. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas at the elementary level?

Sub-Problem 1.3. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the elementary grades?

Sub-Problem 1.4. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the elementary grades?

Sub-Problem 1.5. What is the nature and extent of variance of the DPI for the total instructional time provided at the elementary level?

Sub-Problem 1.6. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the elementary level?

Statement of Problem 2

To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the junior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Sub-Problem 2.1. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the junior high level?

Sub-Problem 2.2. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas at the junior high level?

Sub-Problem 2.3. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the junior high grades?

Sub-Problem 2.4. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the junior high grades?

Sub-Problem 2.5. What is the nature and extent of variance of the DPI for the total instructional time provided at the junior high level?

Sub-Problem 2.6. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the junior high level?

Statement of Problem 3

To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the senior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Sub-Problem 3.1. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the senior high level?

Sub-Problem 3.2. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas at the senior high level?

Sub-Problem 3.3. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the senior high grades?

Sub-Problem 3.4. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the senior high grades?

Sub-Problem 3.5. What is the nature and extent of variance of the DPI for the total instructional time provided at the senior high level?

Sub-Problem 3.6. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the senior high level?

Statement of Problem 4

To what extent may the variance of DPI's for the total instructional time provided in major subject areas, grades one through twelve, be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Sub-Problem 4.1. What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas, grades one through twelve?

Sub-Problem 4.2. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas, grades one through twelve?

Sub-Problem 4.3. What is the nature and extent of variance of the DPI for the total instructional time provided in grades one through twelve?

Sub-Problem 4.4. To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in grades one through twelve?

SIGNIFICANCE OF THE STUDY

Since the introduction of the Alberta school foundation program in 1961, a principal aim of the scheme has been to provide for greater fiscal equalization of school board revenues. While efforts to equalize educational expenditures on a per pupil basis have been made at the provincial level, Bumbarger and Ratsoy (1975:3) indicate that certain situational variables have often not allowed equal educational programs

to be provided by equal expenditure of funds. Levin et al. (1972:11) make the following observation with respect to this issue in school finance:

...While dollar disparities in per pupil spending for education among school districts have already been well documented by others, the real question is whether disparities in dollars mean equivalent disparities in educational resources.

According to Johns (1975:159), future methods of financing education will be directed toward more differentiated funding schemes based on program costs rather than simply on the continued use of a single proxy for "need" such as the number of students.

Previous studies (Pike, 1972; Deiseach, 1974; Richards, 1979; Meek, 1979; and Hanson, 1979) related to various aspects of the Alberta school finance plan have not centered, to any extent, on major factors related to educational program availability at the local level. This study, supported by Alberta Education, was designed as a first step in providing each of the following:

1. A means by which existing curricular program levels in school systems could be described for comparative purposes;
2. Provision of base line information concerning the nature and extent of variation found in program levels across the province for the 1978-79 school year; and,
3. Identification of factors considered relevant to the development of a more comprehensive approach to funding basic education (i.e., grades one through twelve) programs in the province.

In general, this study was intended to serve as a prototype model that might be considered as an alternative means to evaluation of state sys-

tems of school support in terms of three component parts: (1) data preparation, (2) aid allocation, and (3) data analysis.

DEFINITION OF TERMS

Most terms are defined in context throughout this study, but a few more important terms are defined below.

School Finance Plan

Constitutionally, ultimate control of education in Canada resides with the Legislative Assembly in each province subject only to the maintenance of guaranteed denominational rights. As a result, each province legislates and regulates its own system of taxation for, and financial support of, local school jurisdictions. In this study, a school finance plan refers to that aspect of public policy which deals with the raising, distributing and spending of public funds for basic education (Garms, et al. 1978:10).

Public Policy

Public policy refers to a "generalized statement of intent directed toward achievement in the public domain (Tymko, 1979:10)." It is formulated and receives expression through the political process, reflects the societal outcomes desired, and outlines the means by which these outcomes may be achieved.

School Foundation Program

A school foundation program denotes a type of grants-in-aid scheme by which a provincial government provides local school boards under its jurisdiction with support for the provision of a basic (foundation) level of educational services in public elementary and secondary schools

(Deiseach, 1974:9; Meek, 1979:15). The main features of a school foundation program are as follows:

1. The cost of a basic educational program is determined by the province.
2. A uniform tax rate on local property based on the equalized assessment is set as a compulsory levy in all school jurisdictions.
3. Where provincially-levied local property taxes are insufficient to meet the cost of the basic educational program supported, the balance is procured from the general revenues of the province.
4. The province then distributes the grants-in-aid to local school jurisdictions using various funding mechanisms usually based on some common unit of need (e.g., a pupil).
5. School jurisdictions willing to provide for expenditures beyond the basic level of support provided may do so through a supplementary requisition levy on local property.

School Foundation Program Fund (SFPPF)

Since 1961, the major grants-in-aid program for local school jurisdictions in Alberta has been the School Foundation Program Fund. The nature and extent of funding provided each year to school boards is determined by an Order-in-Council of the Executive Council with the amount of the overall appropriation initially approved by the Legislative Assembly. SFPPF regulations provide support to school boards in the following three major categories: (1) per pupil grants, (2) an administration allowance, and (3) transportation grants.

Categorical Grants

Categorical aid refers to a broad class of grants-in-aid through which a central funding authority responds to particular needs at the local level that are "neither equally nor randomly distributed among school districts and thus are not considered in general provisions for basic school support (Berke and Goettel, 1974:224)." Usually, categorical grants are determined in proportion to the need for a particular educational program (e.g., special education) and sometimes in an inverse relationship to local wealth.

School Grants Regulations (SGR)

In Alberta, "additional differentiated support which bear on the educational program and service dollars available, e.g., local wealth (MACSF, 1975:5)," are provided through funding mechanisms outlined in the School Grants Regulations (SGR) established through Order-in-Council.

Supplementary Requisition

Supplementary requisition refers to a local property tax levy, beyond the uniform provincial levy for the School Foundation Program Fund, which is required to provide desired educational services in excess of the "minimum" provincial program supported through SFPF grants and SGR grants.

School Jurisdiction Size

School system size refers to the total number of pupils enrolled in publicly supported schools who are eligible for provincial grants.

Wealth

In this study, wealth or ability to pay refers to the capacity of a school jurisdiction to raise property taxes for school support. The capacity of a school board to generate local revenues is proportional to the equalized assessment per pupil. The principle of ability to pay is often viewed as a universal standard of equity (fairness) in distribution of the tax burden (Deiseach, 1974:11). Hence, a school jurisdiction with a greater ability to pay should under most circumstances be required to raise more taxes for education than those with fewer fiscal resources.

Fiscal Effort

Fiscal effort or tax effort refers to the relative tax load assumed by property owners in a school jurisdiction for support of educational services. It is measured in mills based on the proportion of equalized assessment which is paid out in local property taxes or by the amount requisitioned per pupil through local taxation of property (Meek, 1979:19).

Curricular Program Area

Curricular program area refers to a group of related subjects or course content that are said to comprise a particular major subject area. For example, program offerings in arts, music and drama are referred to as the fine arts.

Index

An index is a number which "measures the value of a variable relative to its value at a base period (Moore, 1979:207)." The variable

selected may refer to an average of more than one quantity, with the weight given to each individual quantity remaining fixed over time.

Time Series

A time series refers to "a sequence of measurements of the same variable made at different times (Moore, 1979:217)." In most instances, the variable is measured at regular intervals of time in order to make meaningful comparisons of any changes that may be occurring in the value of the variable.

District Program Index (DPI)

In this study, a District Program Index refers to the total amount of instructional time provided in major subject areas outlined in the Junior-Senior High School Handbook (1978-79) issued under the authority of the Minister of Education pursuant to Section 12 of The School Act. It is expressed in credit-equivalent units where one credit represents 25 hours of scheduled instruction time per year. In the calculation of a particular DPI for an individual school jurisdiction, consideration was given to the grade enrolments of individual schools.

Equality of Educational Opportunity

In this study, equality of educational opportunity was viewed primarily as equality of pupil access to curricular programs offered in major subject areas outlined in the Alberta program of studies as well as those which had been developed locally. Equality of educational opportunity was not taken to mean equality of results or student outcomes.

School District

In Alberta, school systems having an elected board or one established through Ministerial appointment (in certain special circumstances) are classified as being either public or separate. Public school districts include school divisions and boards of education in counties where a number of individual school districts are considered as a single governing authority in each case. No differentiation is made per se between public and separate school districts in terms of any of the provincial grant entitlements. This is not the case with respect to private school authorities which operate in the province.

ASSUMPTIONS, DELIMITATIONS AND LIMITATIONS

The major assumptions made in this study are outlined below:

1. That the use of a linear regression model, where a correlation of zero is taken to mean a random relationship between variables, was a good fit to the data which were analyzed. The search for any curvilinear relationship which may have existed between certain predictor and criterion variables was considered to be beyond the scope of the study.
2. That the financial data pertaining to the 1977 fiscal year of school boards, being the mid-year of the three-year school finance plan in place from 1976 to 1978, inclusive, was a close approximation of that covering school board revenues and expenditures for the 1978-79 school year.
3. That the variation of the ability among school jurisdictions to support education tends to be reduced through a greater utilization of state resources with other things being equal such as local taxable wealth and fiscal effort.

4. That the average quantity of instruction time allocated to various subject areas within a school jurisdiction is a measure representative of the program level provided to students locally (Kemmerer, 1979).

Delimitations

The study was delimited as follows:

1. To deal with major curricular programs offered in Alberta public and separate school jurisdictions, excluding those provided in regional school districts and private schools.
2. To focus on the average total instructional time allocated to various major subject areas, grades one through twelve, and omitting particular reference to any instruction which may have been provided to learning disabled, handicapped, or disadvantaged pupils because of their uniqueness in individual school settings.
3. To isolate school jurisdictions, rather than individual schools, as the basic units of observation in order to emphasize interdistrict rather than intradistrict variance in program availability.
4. To make use of information collected annually by Alberta Education from each school system in the province.

Limitations

The major limitations of this study were two-fold. First, the study was designed to be cross-sectional in nature, i.e., covering a period of only the 1978-79 school year. Hence, generalizability of the findings for succeeding school years is restricted. Second, the study was not purported to deal per se with the extent of educational program equalization achieved under the Alberta school finance plan. Instead,

the focus of the study was aimed to a large extent at identifying which fiscal and non-fiscal factors tended to interact in combination and have the most bearing on curricular program levels in a given year in order to facilitate the conduct of future studies using the 1978-79 school year as the base year for comparative purposes.

ORGANIZATION OF THE STUDY .

This chapter has presented (1) an introduction to the problem, (2) the statement of the problem, (3) the significance of the study, (4) the definition of terms used, and (5) the assumptions, delimitations and limitations of the study. The remainder of the thesis is outlined below.

Chapter 2 presents a selected review of the literature and sets out the analytical framework for the study.

Chapter 3 describes the research design and procedures used in the study.

Chapters 4, 5 and 6 report the findings of the study at the elementary, junior high and senior high levels, respectively.

Chapter 7 reports the findings of the study for major subject areas, grades one through twelve.

Chapter 8 contains a summary, the conclusions, and a statement of implications and suggestions for further study.

Chapter 2

REVIEW OF RELATED LITERATURE

This chapter presents a selected review of the literature viewed pertinent to the nature of the problem statements under study and an analytical framework. The review of literature is divided into two major parts. The first part provides an overview of some of the major conceptual developments in school finance, while the second part focuses on issues and research findings that relate to each of the five major categories of predictor variables examined in the study. An analytical framework for the study is then presented in the remaining section of the chapter.

MAJOR CONCEPTUAL DEVELOPMENTS IN SCHOOL FINANCE

Historical Perspective

Among the three levels of government in both Canada and the United States, primary responsibility for the provision of public education has rested with each of the provinces and states, respectively. Historically, the study and practice of school finance in Canada has been influenced and somewhat parallel to that found in the United States because of geographical proximity, cultural similarity, and adoption of similar organizational structures for providing public education at state and local levels. In large part, much of the state responsibility and authority for the management and operation of publicly supported schools has been shared with, and delegated to school districts under

the direct control of locally-elected school boards. Generally, the bulk of school district revenues have been derived from two major services: (1) local property taxes, and (2) state grants-in-aid. While traditionally the major objective of state support for public education has been geared to enhancing the degree of educational opportunity provided at the local level, Wilenksy (1970:14) points out that this has often been "interpreted to mean the avoidance of unacceptable differences in the availability of educational services."

Since the turn of the twentieth century, a number of principles and theories of school finance have been advanced as means by which state aid to support public education might be conceptualized and examined on a continued basis. Some of the major principles and alternate models of state school support found in the literature are discussed below.

Principles of State School Support

Throughout much of the literature in school finance, a number of principles have been enunciated and generally perceived as being basic to the development of alternate models of state school financing. While there are modifications or some variances in the listing of such principles, there appear to be at least five core principles embedded in most state school finance plans. Each of these principles is explicated below.

Equal Educational Opportunity. Concern for the provision of equal educational opportunity has been a dominant theme in the study and practice of school finance. Though the idea of equal educational opportunity has carried a favorable connotation, precise definition of the term remains somewhat "ambiguous and encompasses many complicated concepts"

(Fleischmann, 1973:53). Nonetheless, as the Phi Delta Kappa Commission on Alternate Designs for Funding Education (1973:9) has indicated, there is a strong belief that "State school finance plans should not create fiscal imbalances which deny equal educational opportunity."

Garms et al. (1978:21-24) outline three major conceptualizations of equal educational opportunity: (1) equal access to education, (2) equal educational treatment, and (3) equality of educational outcome. Equal access to education has been taken to mean that students must be provided with a minimum level of school resources, i.e., a foundation level, to ensure equality of educational opportunity. Equal educational treatment has been based on the premise that students differ widely in abilities and characteristics, from which it follows, that available school services should be tailored to each student's specific circumstances. By this definition, minimally adequate school services would at least include provision for special educational services for the learning disabled and handicapped as well as compensatory education for the disadvantaged. Equality of educational outcomes has stemmed from the observation that academic achievement is crucial for personal success and hence, equal student learning should be assured at least in terms of minimum or basic skills. By implication, schools should be responsible for achieving such minimal outcomes regardless of the resource level necessary.

To a large extent, incorporation of each of these separate, but related dimensions of equal educational opportunity in state school finance plans has taken the form of general recognition rather than complete, direct adoption because of at least three major constraints. First, there are limits to the amount of available funds which may be

appropriated for support of public education. Second, a minimum level of education is difficult to define in terms of specific educational objectives and necessary program resources. Finally, there is a general lack of consensus with respect to appropriate measures and levels of student achievement.

While attempting to clarify the directions the school finance plan should take in Alberta, the Minister's Committee on School Finance (1975:4) preferred to view equality of educational opportunity as "equality of access of students to programs and services rather than equality of outcomes." The Committee further took the position that fiscal equalization among school jurisdictions was only a first approximation of equality of access. In their view, an equitable finance plan designed to enhance the notion of equality of educational opportunity has essentially two components: (1) an adequate foundation level of funding distributed on a common unit of need such as a pupil; and, (2) additional differentiated support levels based on local factors which bear on the program resources available such as local wealth and cost differences.

Equity of Tax Burden. Generally, economists have examined the question of equity in taxation from the standpoint of two main standards: (1) benefit, and (2) ability to pay. Benson (1978:271) distinguishes between each of these standards as follows:

The benefit principle relates tax burden on the household to the amount of benefits received from government, while the principle of ability to pay relates tax burden to economic capacity. Under either principle, the tax instrument should provide 'equal treatment of equals.' Persons who are in relevant respects equal should be dealt with in approximately the same way.

The benefit principle has been associated with the long-standing rule of business that an individual, household, or corporation "should pay for goods and services according to the amount they use" (Brown, 1980:35). However, as Brown (1980:36) notes, this argument has been refuted in the case of a number of social services provided by government, especially those that relate to provision of elementary and secondary education. There has been political consensus, in large part, that benefits of receiving an education do not accrue solely to individuals, but to society as a whole. As Garms et al. (1978:19) indicate, education is one of the prime instruments through which society may promote and maximize the three strongly held values of liberty, equality, and efficiency. Consequently, and historically, the criterion of ability to pay has become the focal point of discussion when questions concerning equity of tax burden have been raised in school finance.

In general terms, ability to pay is interpreted to mean the economic well-being or standard of living enjoyed by the individual or corporate taxpayer. Brown (1980:37) identifies three basic measures of ability to pay: (1) income received, (2) assets or wealth possessed, and (3) income spent. Although income received, in particular, is viewed as one of the more important determinants of economic well-being, ability to pay in school finance has traditionally been based on assessed valuation of real property. Real property has been defined as "land and those improvements attached firmly to it" (Garms et al., 1980:133).

While the notion of "equal treatment of equals" is commonly accepted as a basic principle in school finance, the equitable treatment of unequals has been a much more complex and contentious issue. Setting aside problems associated with defining and applying criteria for deter-

mination of assessed valuation of real property, the degree to which state programs of school finance should make provision for equalization of local wealth has not been a clear-cut issue. Garms et al. (1978:201-207) point out, need equalization and cost equalization are two other dimensions which also should be assessed in relation to wealth equalization.

Simplicity of Design and Comparability. In order to ensure comparability from year to year for the purpose of assessing the impact of adjustments made to school finance programs, the Commission on School Finance in Saskatchewan (1976:33) emphasized that:

The system should be straightforward and constant in application so that whatever formulas are used will produce information that is predictable and constant.

Basic computation of grant entitlements should be simple and number of adjustments small. The adequacy of basic rates should reflect average expenditures for the preceding year and make provision for rising costs that are anticipated due to inflation. While "save-harmless" provisions may be necessary during the phase-in period of any new grant system, efforts to encourage efficiency of operation should not be disregarded at the same time.

In commenting on the design of systems of state school finance, Garms et al. (1978:239-240) make the observation that greater emphasis should be placed on structural characteristics relating to actual distribution of revenues among the districts rather than on use of terms implying some ideal distribution such as power equalizing and pupil weighting. Some of the structural characteristics suggested by Garms et al.

(1978:240) that may be useful in assessing trends in school support at the state level are as follows:

1. Total state aid (including categorical aid) provided as a percentage of total state-local school revenue. In some cases, the ratio of state aid may in fact be more important than the form of the formula in the provision of local programs.
2. Amount of unequalized local taxation as a percentage of total state-school revenues. This descriptor would tend to indicate the effectiveness of expenditure or tax limits, as well as of the extent of equalization provided through the state program of school support.
3. The coefficient of variation (standard deviation divided by the mean) of equalized expenditures per weighted pupil. Generally, the value of the coefficient should be larger where an effective power equalization program was in effect than in the case of a foundation-type program.
4. The coefficient of variation of equalized expenditures per unweighted pupil. In combination with the preceding measure, this descriptor would tend to gauge the extent to which weighting programs were effective.
5. The coefficient of variation of local property tax rates for school purposes. This measure would indicate the degree of differences in local fiscal effort among school districts.
6. State categorical aid as a percentage of total state-local revenue. This measure would show the extent to which available state funds were being "earmarked" rather than provided as general aid from year to year.

Local Autonomy. Basic to the development of a school finance plan at the state level is the attention given to local autonomy. According to Cohen et al. (1973:21), the issue of local autonomy is perhaps the single most important question raised in discussions of educational finance reform because it relates directly to the preservation of political identity of local communities. Cohen et al. (1973:21) make the following comment:

Local citizen control over school officials and the setting of spending levels are considered the few remaining areas of effective citizen participation in education and government generally.

The Minister's Advisory Committee on School Finance in Alberta (1975:6) expressed the following view with respect to local fiscal autonomy:

Local school jurisdictions should have the opportunity to raise money for the financing of public education when such financing is not provided for in a provincial plan of school support.

While most states delegate authority to school boards to supplement the amount of state-aid received through taxation of local property, two main issues often arise with respect to local fiscal autonomy. First, is the matter related to the degree to which available state funds are apportioned in the form of general-purpose grants as opposed to those which are allocated only as categorical grants. Second, is the matter related to limits that might be imposed by the state on local spending or taxation for school purposes. The Commission on School Finance in Saskatchewan (1976:35) made this observation with respect to both these issues:

Trustees feel strongly that the unconditional grant and the authority to determine the rate of local property tax are essential to the maintenance of local autonomy and initiative in education.

In addition to issues raised concerning the types of state-aid available and extent of local taxation permitted or spending allowed, there also has been some contention that substantial, increased state funding (e.g., in full-state funding schemes) interferes with local autonomy. However, as an Urban Institute study (cited in Cohen et al., 1973:21) has shown, there appears to be "no consistent correlation between the percentage of state funding and the degree of local autonomy."

Stimulation and Control. If it is acknowledged that the state government has constitutional responsibility for education, it follows that a central authority

...should provide leadership toward the improvement of the educational services, and, to this end, should provide monies, over and above the level of the (state) province's financial plan, for development grants and in support of selected programs (MACSF, 1975:7).

However, as the Commission on School Finance in Saskatchewan (1976:35) has pointed out, once experimental and trial stages are past, such programs should fall into place without further special assistance and be provided at local discretion. However, as this Commission (1976:35) also indicated

...the province has a further responsibility to exercise control beyond the initial and experimental stages of school programs if boards should choose to support programs below the level considered mandatory in the interests of the province or nation as a whole.

Alternative Models of State School Support

According to Garms et al. (1978:187-201), the following five basic approaches to state school support have been conceptualized as a means

to reduce the impact of local wealth on school district expenditure levels: (1) flat grant programs, (2) foundation programs, (3) percentage equalizing, (4) power equalizing, and (5) full state funding. The basic premise and distinguishing features of each of these alternative models of school finance are outlined below.

Flat Grant Programs. Historically, when state governments began to provide support for school purposes at the local level, grants took the form of equal amounts of money to each community, regardless of the number of pupils or ability to raise money locally. Subsequently, state funds were distributed on the basis of equal amounts per pupil to each district. The assumption was made that a minimum level of education should be guaranteed to every pupil and "that the state in its wisdom can determine the costs of this minimum education and will allocate that dollar amount as a flat grant" (Garms et al., 1978:188). It was held that educational services provided beyond this minimum level should be paid out of local revenues as the benefits of such education accrued to the individual concerned or the community in which he or she resided.

As early as 1905, Ellwood P. Cubberley (cited in Garms et al., 1978:188), one of the first to write persuasively of the problems of school finance, expressed concern about the practice of apportioning available state funds to local school districts on the basis of equal dollars per pupil. Since per pupil grants seemed to favor the school centres where larger class sizes were possible, Cubberley's solution was to allocate to each district an amount for each teacher employed. Cubberley (cited in Johns, 1973:160-161) proposed the following theory of state support:

Theoretically all the children of the state are equally important and are entitled to have the same advantages; practically this can never be quite true. The duty of the state is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand; to place a premium on those local efforts which will enable communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings.

Johns (1973:161) summarized Cubberley's principles of state support as follows:

1. That due to the unequal distribution of wealth, the demands set by the states for maintaining minimum standards cause very unequal burdens. What one community can do with ease is often an excessive burden to another.
2. That the excessive burden of communities borne in large part for the common good should be equalized by the state.
3. That a state school tax best equalizes the burdens.
4. That any form of state taxation for schools fails to accomplish the ends for which it was created unless a wise system of distribution is provided.

These principles of state school support led to the formulation of the foundation program concept first described in 1923 by George D. Strayer and Robert M. Haig (cited in Garms et al. (1978:190)).

Foundation Programs. In large part, the fiscal limitation of state governments to generate sufficient revenue on their own to finance flat grant programs adequate to provide minimum levels of education locally, led to the formulation and acceptance of the foundation program concept. George D. Strayer and Robert M. Haig (cited in Johns, 1973:162)

credited with the initial explication of the foundation program concept in 1923, set forth the following argument in support of the approach:

There exists and has existed for many years a movement which has come to be known as the 'equalization of school support.' These phrases are interpreted in various ways. In its most extreme form the interpretation is somewhat as follows: The state should insure equal education facilities to every child within its borders at a uniform effort throughout the state in terms of the burden of taxation; the tax burden of education should throughout the state be uniform in relation to taxpaying ability, and the provision for schools should be uniform in relation to the educable population desiring education. Most of the supporters of this proposition, however, would not preclude any particular community from offering at its own expense a particularly rich and costly educational program. They would insist that there be an adequate minimum offered everywhere, the expense of which should be considered a prior claim on the state's economic resources.

As Garms et al. (1978:190) have noted, the proposed system of state school support had the "effect of capturing a portion of the local property tax for state purposes, without that being openly evident." The basic premise of the foundation program concept, just as with the flat grant program approach, is that the state would specify a dollar amount per student that each district would receive to provide a minimum level of education (i.e., foundation level), but with one major exception. Under the foundation program concept, a state normally would compute a district's contribution at a fixed rate on the assessed valuation of local property and provide only the difference between the amount computed and the guaranteed expenditure level. As Garms et al. (1978:192) note, a flat grant scheme "is simply a special case of the foundation program, in which the required local tax is zero."

Although Strayer and Haig were first to conceptualize the basic notion of a foundation program, it was Paul Mort (cited in Johns,

1973:163) that developed the technology for implementing the concept which was adopted for use in some forty-two states by 1971-72. In operationalizing the concept, Mort (cited in Meek, 1979:32) addressed the issue of "satisfactory minimum offering" on the basis of a "weighted pupil" measure as a way of allowing for differentials in pupil needs. Using average expenditure data accumulated on "typical" school districts, Mort (cited in Meek, 1979:33) found that the average high school pupil cost was twice that of an elementary pupil. The end result has been that weighting factor coefficients included in foundation-type programs of school support generally reflect "average practice" in terms of program per pupil costs.

In 1971, Jones (cited in Meek, 1979:33-34) summarized Mort's concept of a foundation program and his sponsorship of local program initiatives by consolidating them to six distinct phases listed below.

Phase 1. A given level of educational service and given level of state school support are in existence.

Phase 2. One or more local school districts perceive a need to provide some new educational service beyond the state minimum. If necessary, they tax themselves above the amount required by the state to provide this educational service.

Phase 3. The adaption developed in the lighthouse districts is disseminated to other localities. They too raise their local tax rates to institute the adaptation.

Phase 4. The adaptation gradually becomes accepted practice throughout the state. Eventually, the state provides for the adaptation in all local districts, possibly through the institution of a categorical state grant for the purpose.

Phase 5. The adaptation is required by state law, and state financial support for the adaptation is incorporated into the Strayer-Haig minimum foundation program.

Phase 6. The extra state support allows the original lighthouse districts to reduce their tax burdens; hence, they become more receptive to the possibility of still newer adaptations.

Percentage Equalizing. The concept of percentage equalizing is not a new concept. In 1922, about the time the Strayer-Haig foundation program concept was advanced, Harlan Updegraff and Leroy A. King (cited in Garms et al., 1978:195) urged the adoption of percentage equalizing in state systems of school finance. In general terms, it was proposed that the state should share in the financing of education by providing a fixed percentage of each school district's expenditures, with the overall amount of education provided to be decided at the local level.

The mathematical expression, noted by Garms et al. (1978:193), used to determine the state "aid ratio" is usually written in the form indicated below:

$$(1 - f \frac{Y_i}{\bar{y}})$$

where Y_i is the assessed valuation per pupil of the district:
 $\bar{y}$ is the assessed valuation per student of the state as a whole, and
 f is a scaling factor that is usually set somewhere between 0 and 1.

While the flat grant and the foundation plan have the same philosophical underpinning (i.e., each pupil should receive a minimum level of education and the state should guarantee this on an equal basis), percentage equalizing has a different philosophical base described by Garms et al. (1978:193) as follows:

Essentially, it defines equity as access to education on the same terms, and it also holds that the amount of education to be purchased by a community should be determined by that community.

A practical problem associated with implementation of percentage equalizing plans has been the need to place fiscal limits on the expenditure per pupil that will be equalized by the state. Just as the flat grant may be considered a special case of the foundation plan, Garms et al. (1978:196) note the following:

...the foundation plan is simply a special case of the percentage equalizing plan in which the budget to be participated in by the state is set at a particular figure instead of being allowed to fluctuate.

Power Equalizing. The concept of power equalizing has the same philosophical base as percentage equalizing, i.e., the ability to raise money should be equalized, but the decision as to the amount raised should be left to local districts. Power equalizing was formally enunciated by John E. Coons, William H. Clune, and Stephen D. Sugarman (1970) in their book Private Wealth and Public Education, which argued strongly that public education expenditures should not be a function of local wealth, but of the wealth of the state as a whole. According to Garms et al. (1978:197), "this formed a substantial part of the legal reasoning exhibited in Serrano and other school finance 'equal protection' cases."

In operational terms, power equalizing involves the establishment of a schedule of tax rates to be imposed locally on the assessed valuation of real property, with an amount per pupil guaranteed by the state to a district for each level of tax. While power equalizing seems identical to percentage equalizing, Garms et al. (1978:199) suggest that:

...power equalizing is more general than percentage equalizing because it is not necessary to have a linear schedule that is implied by the guarantee of an amount per mill per student.

Hence, percentage equalizing may be viewed as a special case of power equalizing.

Full State Funding. According to Garms et al. (1978:199-201), full state funding was first espoused by Henry C. Morrison in 1930 with the basic intent being that pupils in each district, other things being equal, would be recipients of equal monetary provision supported by statewide taxation, including property taxes at the local level. As the Fleischmann Commission Report (1973:63) pointed out, under full state funding:

The state shall determine a defensible basis of distributing money to school districts. Equal sums of money shall be made available for each student, unless a valid educational reason can be found for spending some different amount.

By not allowing local supplementary requisitions to be levied, problems related to tax and expenditure discrepancies among districts may be overcome as evident in the practical application of other plans of state school support. However, as Garms et al. (1978:201) suggest, the high degree of equity envisioned under full state funding may have a net result of necessary, increased state monitoring of individual educational programs provided locally since students in different programs generate different amounts of state money. As a consequence, this may take some of the initiative away from local school districts and their officials.

From a philosophical perspective, full state funding tends to be much closer to that of the flat grant and foundation plans than it is to the percentage and power equalizing plans. Garms et al. (1978:200) support this point of view as follows:

One merely specifies that no local taxation is allowed (in the case of the flat grant program), or that the district may only tax at the required rate (for the foundation program).

RELATED RESEARCH FINDINGS AND ISSUES

This section discusses some of the related research findings and issues that pertain to various measures of demographic, wealth, fiscal effort, revenue, and expenditure variables examined in the study.

Population Shifts and Declining Enrolment

Population shifts from rural to urban areas as well as from inner city cores to suburban areas, combined with continued evidence of enrolment declines, have been the major demographic changes of the last decade (Meek, 1979:74; Odden, 1978:146). In a recent study by Meek (1979:179), it was found that in the period extending from 1970 to 1974 school boards in Alberta were not able to adjust expenditures downward to match declining-enrolment revenue losses. This study also showed that smaller jurisdictions and those where the district size exceeded 4,500 pupils were less able to reduce expenditures in the face of the same percentage of declining-enrolment revenue losses.

Size of School Districts

In a review of the research that has been done with respect to the optimal size of school districts, Garms et al. (1978) and Webb (1979) make the observation that most studies related to this question have examined cost-size relationships to determine the extent to which economies of scale operate in the educational enterprise. Generally, the response to the question of what should be the minimum, maximum, or optimum size of school districts (or even schools) still remains

unresolved. However, as Hickey (cited in Webb, 1979:343) has aptly pointed out:

The obvious conclusion...is that size must be viewed as a variable and not as an absolute factor. Situational variables are strong and may profoundly influence the size/quality relationship in a district.

If the assumption is accepted that each school district within a state has a legitimate reason for its existence, then the notion of keeping educational program disparities and fiscal inequities amongst such districts to reasonable levels of tolerance becomes important in the design of state school finance plans.

Garms et al. (1978:94) note that a number of studies have shown "significant economies of scale up to about 1,500 to 2,000 students in a district and significant diseconomies of scale when districts are comprised of more than 20,000 students." G. Alan Hickrod (cited in Garms, 1978:94) found that the greatest efficiency was achieved, amongst districts studied in Illinois, where the average daily attendance was about 2,432. These findings would seem to indicate that school system size is an important variable to consider in both the formulation as well as evaluation of the distributional impact of various forms of state school support at the local level.

Wealth and Fiscal Effort

With the realization that the burden of financing education is heavier for some districts than for others because of differences in local wealth, the means by which states obtain and distribute fiscal resources for support of public education are now being changed. As Augenblick (1979:1-2) has noted, some form of a fiscal equalizing com-

ponent has been added to a growing number of state school finance systems such that less wealthy districts have received more state support than very wealthy districts.

Although the standard measure of district wealth has been assessed valuation per pupil, Odden (1977:356) notes that two criticisms of the measure have been leveled and alternate measures have been proposed. First, it is contended that assessed valuation per pupil is a biased measure. The argument has been put forth that assessed valuation per capita should be used instead since it is biased neither for nor against educational services and provides a neutral measure of the ability of any given area to finance all local governmental expenditures from property taxation, educational or otherwise. The second criticism relates to the fact that property value is no longer an accurate measure of wealth for either school districts or individuals. Income, on the other hand, may not only be a better measure of district wealth but also may be more important in explaining certain aspects of fiscal behavior. Although these two alternate measures of wealth have been proposed, Odden (1977:359) makes the observation that 37 states have continued to use assessed valuation per pupil as the measure of local wealth in their school finance systems.

Resource and Expenditure Differences

The notion of "average" per pupil cost has been an important consideration in the establishment of support levels in state school finance systems. To a large extent, it has been assumed that total operational revenues received by a district (i.e., those excluding any capital or debt servicing grant entitlements) are equal to total opera-

tional expenditures made, except for accumulated deficits or surpluses. Generally, it is common practice in state financial reporting and accounting systems to break down total revenues according to source and to require that total expenditures be accounted for in terms of use of revenues received. What sometimes is overlooked in analyses made of state equalization efforts is the rate and extent to which districts make transfers from the current account (i.e., the operating revenue fund) to the capital account (i.e., the capital fund). Carroll (1979:22) makes the following observation:

All states preclude transfers from capital account to current account, but most permit transfers from current account to capital account.

Thus, the choice between revenue-orientated measures and expenditure-orientated measures may be of significance in the analyses of state support should the rate at which districts transfer funds from the current to capital account be related to their per pupil revenues.

Resources Costs and Equity

While state efforts have been made to improve the equity with which educational funds are distributed to local school districts, Chambers (1980:262) has pointed out that:

...these efforts to equalize should not be limited to improving the distribution of nominal differences in school spending, but rather should be directed toward improving the distribution of 'real' educational services. Indeed, from this perspective, some nominal variations in school spending may be justified on the basis of differing needs of student populations and uncontrollable variations in the prices of school resources.

Taking the argument somewhat further, Matthews (1979:334) contends that adjusting funding formulas to compensate for cost differences without

consideration of program levels provided may, in fact, magnify inequities rather than move toward equality of educational opportunity. In some instances, districts may be successful in receiving a disproportionately higher level of state aid because of a variety of other factors such as identifying pupils with special needs, securing services of specialist teachers, meeting facility requirements for categorical programs, and developing special educational programs; while others are not as able to secure such funds.

Levels of Program Offering

According to Augenblick (1979:7), the move to incorporate some recognition of minimum or basic levels of education in school finance systems has resulted from at least two major perspectives. The first concern relates to the public demand for increased accountability with regard to the utilization of governmental resources for education and the need to develop appropriate measures to gauge the effectiveness and efficiency of school and system operations. The second concern centres around the fact that a number of state school finance systems have been found by the courts to be a violation of constitutional provisions relating to ensuring some degree of equal educational opportunity to all citizens regardless of factors related to wealth or location.

While states have tended to spell out program requirements for hours of instruction, days and length of the school year, and types of curriculum to be taught, the overall nature and extent of variation in district program levels has not been extensively reported upon. However, in a study completed in 1968 by Thomas (cited in Johns, 1977:499) of educational programs provided in both elementary and high

schools in different types of districts, it was found that program variations were primarily due to variation in fiscal resources. In later studies conducted by Barro and Carroll in 1975, and Kirst in 1976 (cited in Carroll, 1979:33) it was shown that:

...about 80 per cent of each new state dollar was used to provide additional services for students; although about 20 per cent of each new dollar was used to raise teachers' salaries, the raises were in general less than those of other districts in the region.

ANALYTICAL FRAMEWORK

Recently, there appears to be increasing reliance on data analysis to identify imperfections in state systems to raise and distribute resources for public education. The assumption has been made that, to some extent, existing inequities are systematic rather than unique to individual districts. As Moskowitz and Sherman (1979:323) point out, the documentation of such claims is facilitated through "an investigation of the relationships among a number of key finance and demographic variables." The four major types of fiscal variables which have been examined are as follows: (1) property wealth, (2) equalized tax rates, (3) expenditures, and (4) state aid. Generally, it has been shown that:

1. A wide range of values in property wealth, tax effort, and expenditures exists across a state.
2. School district wealth (defined as equalized property valuation per pupil) is the primary determinant of a school district's expenditures for education.
3. Property-poor districts which exert above average tax rates are able to provide only below average expenditures.
4. State equalization aid, often intended to compensate for wealth-based expenditure dispari-

ties, is insufficient to fully equalize access to educational revenues (Moskowitz and Sherman, 1979:324).

According to Hickrod and Sabulao (1969:5), research efforts "are undertaken because individuals have unanswered questions that have arisen from their reading, and from their observation of society which surrounds them." This exploratory study was undertaken for two main purposes. First, to determine the nature and extent of variation that might exist with respect to district curricular program levels as measured by the amount of instructional time provided in major subject areas at individual grade levels in Alberta school systems. Second, to determine the extent of variation which could be accounted for in terms of a set of selected measures of demographic, wealth, fiscal effort, revenue, and expenditure related variables using stepwise multiple linear regression analysis.

SUMMARY OF CHAPTER 2

This chapter has presented a review of the literature considered of importance to the nature of the problem statements investigated in the study as well as the analytical framework adopted to complete the study. The review of literature focussed on: (1) major conceptual developments in school finance, and (2) a number of research findings and issues related to the broad categories of predictor variables examined in the study.

In the first part of the review of literature, five core principles embedded in most state school finance plans were identified and five alternate models of state school support were outlined. The principles of state school support discussed were as follows: (1) equal educational

opportunity, (2) equity of tax burden, (3) simplicity of design and comparability, (4) local autonomy, and (5) stimulation and control. The alternate models of state school support described were as follows: (1) flat grant programs, (2) foundation programs, (3) percentage equalizing, (4) power equalizing, and (5) full state funding. The final part of the review of literature dealt with related research findings and issues that related to each of the following: (1) population shifts and declining enrolment, (2) size of districts, (3) wealth and fiscal effort, (4) resource and expenditure differences, (5) resource costs and equity, and (6) levels of program offering.

The analytical framework adopted for the study consisted of using stepwise multiple linear regression to investigate the relationship between district curricular program levels in Alberta school systems and a number of selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables.

Chapter 3

RESEARCH DESIGN AND PROCEDURES

This chapter contains a description of the research design and procedures used in the study. In brief, the study consisted of three major phases:

1. Describing the nature and extent of variation found in district program levels (DPI's) in major subject areas, grades one through twelve, as shown in Appendix A;
2. Computing district values for each of the 32 predictor variables examined in the study as reported in Appendix A; and,
3. Determining the extent of variation which could be accounted for in each of the DPI's by the set of predictor variables examined in the study as indicated in Appendix B.

These are dealt with separately in each of the sections which follow.

CONCEPTUALIZATION OF THE DISTRICT PROGRAM INDEX (DPI)

Introduction

The need to identify an appropriate means by which curricular program levels in Alberta schools could be described has been of concern in school finance for some time. The Minister's Advisory Committee on School Finance in Alberta (1975:25) made this observation:

...At the present time, the programs of study provide a partial outline of 'what ought to be.' Without a description of 'what is,' the definition of the educational 'gap' and any subsequent grants

designed to minimize this difference, become an educated guess at best.

In Alberta, the curricular program requirements mandated province-wide by the Minister of Education vary quite substantially at each of the elementary, junior high and senior high levels along two major dimensions:

1. In the degree of content specification for both required and elective subjects; and,
2. In the amount of scheduled instructional time which is to be provided in required and elective subjects taught.

At the elementary level, students are required to receive instruction in designated core subject areas but no specific regulations or guidelines are provided with regard to instructional time requirements. At the junior high level, minimum time allotments for instruction in core subjects have been provided through regulation. However, guidelines only are provided for allotments of instruction time in elective courses. At the senior high level, "credit" values have been assigned to each subject which may be offered. Although variable credits have been assigned to each of a number of courses, it has been required that a total of at least 25 hours per credit be scheduled for purposes of instruction.

At present, no study has been made of the nature and extent to which students in Alberta have access to major curricular programs (i.e., excluding special education programs) at all grade levels in individual school jurisdictions. However, an earlier study by Downey (1965) reported the total credit offering in senior high schools across the province. In general, this study showed that high schools with fewer than 200 students offered inadequate programs (Downey, 1965:57).

Although no provincial study has been made of curricular programs offered in all schools, school evaluation reports prepared by the Department of Education have made reference to various subjects taught in individual schools. Comparisons also have been made of school program levels within individual school jurisdictions with respect to (1) the nature of subjects taught, and (2) the number of course offerings or instructional time provided within major subject areas. A significant part of the research problem addressed in this study related to the development of a quantitative measure which could be employed to describe curricular program levels in Alberta school jurisdictions from information available in the data base maintained by the Department of Education.

Calculation of the District Program Index

According to Wiley (1977) and Kemmerer (1978), the allocation of instructional time has been assumed to be of importance in determining student outcomes. Although findings in this respect have been inconclusive, student access to curricular programs has been viewed as one of the prerequisites to enhancing equal educational opportunity (MACSF, 1975:4).

In order to complete this study, a District Program Index (DPI) was developed as a means to aggregate school curricular program offerings in major subject areas at each grade level on a district-wide basis. Following consultation with senior officials of Alberta Education, it was considered that the calculation of the DPI should include each of the following two factors:

- 1. The total amount of scheduled instructional time provided in individual courses offered within a major subject area at each grade taught as a measure of school program level;
- 2. The grade enrolment at each school within a jurisdiction as a measure of student access to a curricular program offering.

It also was considered that DPI's should be expressed in credit-equivalents where one credit represented 25 hours of scheduled instructional time per year. In its most general form, a DPI may be expressed in mathematical terms as follows:

$$DPI = \frac{\sum_{s=1}^n \sum_{c=1}^m T_{sc} E_s}{\sum_{s=1}^n E_s}$$

where E_s = enrolment for grade under consideration
in school s
 T_{sc} = scheduled instructional time for course c
in school s
 n = number of schools in district
 m = number of courses in subject area

To compute the DPI for language arts at the elementary level, for example, the DPI for language arts at each of the elementary grade levels was determined and then added together. To arrive at the DPI for an individual grade level, the separate DPI's calculated for each of the major subject areas offered at the grade level were added together. Calculation of the DPI is illustrated in Appendix A.

Subject Area Groupings. The major subject area groupings selected for the study were in accordance with those outlined in the Junior-Senior High School Handbook (1978-79) issued under the authority of the Minister of Education pursuant to Section 12 of The School Act (1970). The grade levels for which each of these subjects area groupings were applicable is summarized below:

<u>Subject Area</u>	<u>Grades Applicable</u>
Language Arts	1-12
Mathematics	1-12
Social Studies	1-12
Science	1-12
Personal Development	1-12
Fine Arts	1-12
Second Languages	1-12
Business Education	7-12
Home Economics	7-12
Industrial Ed. (General)	7-12
Industrial Ed. (Vocational)	10-12

DPI's Examined in the Study. Although 176 DPI's were calculated to complete the study, only those indicated below were directly reported upon. The criterion variable number assigned to each DPI examined in the study is given below:

1. Subject Areas DPI's Examined:

	<u>Elementary</u>	<u>Jr. High</u>	<u>Sr. High</u>	<u>All Grades</u>
Language Arts	C7	C11	C15	C16
Mathematics	C23	C27	C31	C32
Social Studies	C39	C43	C47	C48
Science	C55	C59	C63	C69
Personal Development	C71	C75	C79	C80
Fine Arts	C87	C91	C95	C96
Second Languages	C103	C107	C111	C112
Business Education		C116	C120	C121
Home Economics		C125	C129	C130
Industrial Ed. (General)		C134	C138	C139
Industrial Ed. (Vocational)				C144
Other Subjects		C155	C143	C160
TOTAL	C167	C171	C175	C176

2. Grade DPI's Examined:

1 - C161	7 - C168
2 - C162	8 - C169
3 - C163	9 - C170
4 - C164	10 - C172
5 - C165	11 - C173
6 - C166	12 - C174

The mean and standard deviation for each of the above criterion variables (DPI's) is found in Appendix A.

Strengths and Limitations of the DPI. In summary, the DPI is a means by which the total amount of scheduled instructional time provided in major subject areas for each grade at the school level may be quantified on a district-wide basis taking into consideration the number of students that have access to the program. Its major strengths are as follows:

1. The DPI is additive, i.e., individual subject area DPI's may be added together at particular grade levels or across grade levels.
2. The DPI is a standard measure of instructional time provided in schools that may be of direct use in monitoring district program levels in various subject areas or grade levels. In essence, it provides a measure of the availability of purchased resources at the district level when questions related to the distribution of revenues for schooling may wish to be considered (Kemmerer, 1978:1).
3. The DPI may be calculated from data readily acquired from the school program information stored in files and records maintained by the Department of Education.

The major limitation of the DPI is that it has an enrolment bias. While the DPI reflects student access to curricular program availability in a general sense at each school within a school jurisdiction, it does not include actual participation rates in individual courses within a given subject area.

PREDICTOR VARIABLES EXAMINED IN THE STUDY

Five major categories of predictor variables were examined in the study. These categories were as follows: (1) demographic characteris-

tics, (2) wealth related measures, (3) fiscal effort related measures, (4) total revenues from provincial grants and other sources, and (5) selected district expenditures. A brief description of the nature of each predictor variable selected within each of the above categories is given below. The identification code used in the analysis for each of these measures is shown in parentheses.

Demographic Characteristics

According to Sparkman (1977:346-347), the cost of educational services and the amount of local support provided for education have each been shown to be related to a variety of demographic characteristics. Since school jurisdictions in Alberta differ with respect to a number of demographic characteristics, several of these were selected for examination in the study. Those selected were as follows: (1) district size, (2) regional location, (3) jurisdiction type, (4) degree of urbanization, (5) sparsity of population, and (6) extent of school building utilization.

District Size. The following four measures of district size were examined in the study:

1. Elementary enrolment (P21),
2. Junior high enrolment (P22),
3. Senior high enrolment (P23), and
4. Total enrolment (P24).

As Garms et al. (1978) and Webb (1979) have indicated, a number of studies in school finance have focussed on determining cost-size relationships. Generally, economies of scale have been associated with

larger district size. However, the relationship between the extent of curricular program offering and district size has not been reported upon in any detail.

Regional Location. An attempt was made in this study to ascertain whether regional location of school jurisdictions related to any of the variation found in district program levels. For purposes of the analysis, the following service areas assigned to Regional Offices of Alberta Education were considered as separate geographical areas:

1. Grande Prairie (R1),
2. Edmonton Rural North (R2),
3. Edmonton Rural South (R3),
4. Red Deer (R4),
5. Calgary Rural (R5),
6. Lethbridge (R6), and
7. Large Urban - Edmonton and Calgary (R7).

Regions one through six also are coterminous with the Zone Associations established provincially by the Alberta School Trustees' Association. In the analysis, region was considered a dichotomous variable and presence was equated as one and non-presence as zero.

Jurisdiction Type. In Alberta, local school authorities having elected boards of trustees are classified as public or separate school districts. Public school districts include both school divisions and county boards of education. During the 1978-79 school year, about 18 percent of the total pupil population in Alberta attended separate schools. Except in the larger urban areas, separate school districts are usually much smaller in size and have a lower equalized assessment

per pupil. In the analysis, jurisdiction type (JUR) was considered a dichotomous variable where public school districts were equated as zero and separate school districts were equated as one.

Degree of Urbanization. As Meek (1979:74) and Odden (1978:146) have pointed out, the population shift from rural to urban areas has been one of the major demographic changes of the last decade. Recognizing that further consolidation of educational services outside the large urban centres of Alberta has remained relatively unchanged during this time, an attempt was made in this study to discern if the urban pupil ratio had impact on district program levels. The urban pupil ratio (P2) was defined as follows:

$$\frac{(\text{Total Enrolment}) - (\text{Eligible Rural Pupils Transported})}{(\text{Total Enrolment})}$$

Eligible rural pupils transported referred to those rural pupils for whom a school jurisdiction was eligible to receive transportation allowances provided under the School Foundation Program Regulations.

Sparsity of Population. In this study, sparsity of pupil population was considered as a possible factor contributing to additional local costs for educational programs provided because of diseconomies of scale resulting from smaller pupil numbers. Sparsity of pupil population was measured by the following ratio:

$$\frac{(\text{Daily Rural Route Eligible Distance for School Bus Fleet}) \times (\text{Total No. of Eligible Pupils Transported})}{\text{Total Enrolment}}$$

Extent of School Building Utilization. The extent to which school facilities are used to capacity had been of major concern to policy

makers at both local and provincial levels for some time. Generally, it is acknowledged that operation and maintenance costs per pupil tend to increase more rapidly the greater the proportion of available student places within a school jurisdiction. For purposes of this study, the extent of school building utilization within a jurisdiction was defined as the following ratio:

$$\frac{\text{Total Enrolment}}{\text{Total Available Student Places}}$$

The assumption was made that lower school building utilization ratios were more likely the result of enrolment decline rather than "over provision" of school facilities.

Wealth Related Measures

The tax burden of financing education is heavier for some districts than others because of differences in local wealth. Generally, the standard measure of district wealth has been the assessed valuation per pupil (Odden, 1977:356). In this study, the following two contrasting measures of wealth were examined: (1) the amount of equalized assessment per pupil (P4), and (2) the unsupported debt mill rate levied to cover previous capital costs (P6).

Equalized Assessment Per Pupil. In Alberta, procedures for assessment of real property are standardized on a province-wide basis. Each year the provincial "Assessment Equalization Board" calculates the equalized assessment for each municipal tax collecting authority based mainly on the "live" or actual assessment for the previous year. From this listing, the total equalized assessment for each school district is

determined. In 1978, a Supplementary Requisition Equalization Grant was paid to less wealthy districts on the first 13.2 mills levied. Since equalized assessments per pupil varied substantially across the province and most districts levied a mill rate of over 20 mills (i.e., based on the equalized assessment), an attempt was made in this study to ascertain the impact of differences in local taxable wealth on district program levels. A limitation of using equalized assessment per pupil as a measure of taxable wealth in any given year is that actual property taxes paid are based on current assessments and hence, the tax burden will be less for growth areas and more for those areas experiencing economic decline.

Unsupported Debt Mill Rate. Because of variations in price, some districts are faced with larger capital costs to provide needed facilities and equipment. As a result, such districts find it necessary to use a greater proportion of the supplementary requisition levied to repay unsupported debenture and short-term loan payments. In this study, the unsupported debt mill rate based on the equalized assessment of districts was used as a measure of the additional tax burden experienced by some districts in providing local educational services. A weakness of this measure is that average unsupported capital costs to be paid by districts in any given year is dependent to some extent on the debt retirement period selected by individual boards.

Fiscal Effort Related Measures

As Sparkman (1977:340) has noted, fiscal effort may be viewed from at least the following three perspectives:

...(a) a measure of tax performance as determined by comparative tax collections among different taxing jurisdictions; (b) a measure of tax severity showing the tax burdens falling upon taxpayers by relating taxes paid to a measure of taxpaying ability, usually income; or the (c) the relative sum of fiscal capacity indicating the degree of utilization of available tax sources.

In this study, three alternate measures of fiscal effort based on the concept of the relative use of tax capacity (i.e., local wealth) were examined:

1. Net supplementary requisition mill rate (P5). ("Net" indicates that provincial grants received in lieu of taxes on electric power lines and pipelines were subtracted).
2. Ratio of supplementary requisition levied to total operational revenue (P9).
3. Amount of supplementary requisition levied per pupil (P20).

In summary, each of these selected measures addressed the following aspects of fiscal effort:

1. The net supplementary requisition mill rate indicates district tax rates set irrespective of the amounts of local wealth available for taxation purposes.
2. The ratio of supplementary requisition levied to total operational revenue indicates the overall proportion of educational services provided directly through local funding.
3. The amount of supplementary requisition levied per pupil provides some indication of additional average pupil costs at the local level over and beyond all other revenue sources for individual districts.

Revenues from Provincial Grants and Total Sources

The operation of public and separate school jurisdictions in Alberta is dependent mainly on two major revenue sources outlined below:

- 1. A provincial system of school support in the form of largely general-purpose grants outlined in the School Foundation Program Fund (SFPF) regulations and special-purpose grants contained in the School Grants Regulations (SGR). Since 1971, SFPF grants have been made up of weighted per pupil grants for instruction, allowances to offset administration and transportation costs, and recognized capital debt retirement grants (excluded from examination in this study). In the years 1977 and 1978, SGR grants were made up of 23 special-purpose type grants ranging from support of special and vocational education to declining enrolment and supplementary requisition equalization grants.
- 2. A local supplementary requisition levied on the assessed valuation of real property.

In the years 1977 and 1978, school board expenditures in the province were supported as follows:

1. Provincial Contribution	<u>1977 (%)</u>	<u>1978 (%)</u>
SFPF	57.6	55.4
SGR and other grants	8.2	8.6
TOTAL	65.8	64.0
2. Local Contribution		
SFPF	8.7	9.0
Supplementary Requisition	20.7	24.4
TOTAL	29.4	31.4
3. Other Revenues	4.8	4.6

The revenue measures examined in this study consisted of the following:

1. Ratio of SFPPF grants received to total operational revenue (P7).
2. Ratio of SGR grants received to total operational revenue (P8).
3. Total SFPPF grants received per pupil (P18).
4. Total SGR grants received per pupil (P19).
5. Total operational revenue per pupil (P10).

Since the study was of an exploratory nature, no effort was made to differentiate amongst the variety of grants made available under each of the SFPPF and SGR grant structures. However, an attempt was made to examine the overall impact of each of these major grant categories on district program levels.

Selected District Expenditures

Since 1974, Alberta has had a standardized, provincially-mandated Program Accounting and Budgeting (PAB) system which consists of thirteen standard expenditure categories. For purposes of this study, measures of the following seven major expenditure categories were selected:

1. Per pupil expenditure for elementary instruction (P11).
2. Per pupil expenditure for junior high instruction (P12).
3. Per pupil expenditure for senior high instruction (P13).
4. Per pupil expenditure for administration (P14).
5. Per pupil expenditure for operation and maintenance (P15).
6. Per pupil expenditure for transportation (P16).
7. Total operational expenditure per pupil (P17).

As indicated, both instructional and non-instructional categories of expenditures were examined in the study to determine their relationship, if any, to district program levels.

ANALYSIS OF DATA

Nature and Source of Data Used

The data used in this study were drawn from records maintained by the Alberta Department of Education using information supplied by public and separate school jurisdictions in the province. Financial records used covered the 1977 and 1978 fiscal years, and the school program information used covered the 1978-79 school year.

Population

In computing any measure for any variable, available data from all public and separate school districts, school divisions and counties were included. There were, however, a few instances where the data required to calculate one or another of the variables for a district were missing or were clearly erroneous and correct information could not be obtained. In such cases, that district was omitted in calculating the measure for that variable.

Generally, the data from 121 school jurisdictions which had operating schools were used to complete the study. Regional school districts and private schools were excluded from the study.

Treatment of Data

Phase One. The first phase of the study consisted of calculating the DPI's for each major subject area at each grade level for all public and separate school districts in Alberta which had operating schools during the 1978-79 school year. The mean and standard deviation of all DPI's calculated is found in Appendix A.

Phase Two. The second phase of the study consisted of computing district values for each of the predictor variables examined in the study. The mean and standard deviation for each of these predictors are found in Appendix A.

Phase Three. The final phase of the study consisted of using a stepwise multiple regression procedure (SPSS Manual, 1975:353) to determine the extent to which the variation found in various DPI's could be accounted for in terms of the set of predictor variables examined in the study. Regression equation results were only reported where: (1) the R^2 change was at least 0.010 (i.e., at least 1 percent), and (2) the level of significance for the overall F ratio was less than 0.01. The correlation coefficients for all variables examined in the study and the regression results for each criterion variable (DPI) are shown in Appendix B.

Statistical Limitation of the Results. Because of the possible high intercorrelation among some or all of the predictor variables, the variance accounted for by the first predictor may be overstated, i.e., the problem of multicollinearity referred to in the SPSS Manual (1975:340) and by Benson (1978:197) may be in existence.

SUMMARY OF CHAPTER 3

This chapter has detailed the research design and procedures used in the study. Each of the following were outlined: (1) calculation of District Program Index (DPI), (2) the nature and source of data collected for the population studies (including the complete listing of all criterion and predictor variables examined in the study), (3) the treatment of data, and (4) the statistical limitation of results obtained.

The study was conducted in three distinct phases. First, the nature and extent of variation in district curricular program levels (DPI's) was determined for 121 public and separate school jurisdictions in Alberta which had operating schools during the 1978-79 school year. Second, district values were computed for each of the 32 predictor variables examined in the study and finally, stepwise multiple linear regression was used to determine the relationship between district curricular program levels and various measures of demographic, wealth, fiscal effort, revenue and expenditure variables.

Chapter 4

ANALYSIS AND FINDINGS AT THE ELEMENTARY LEVEL

This chapter presents the results of the data analysis and provides a discussion of the findings with respect to Sub-problems 1.1 through 1.6 of Problem 1. Problem 1 was stated as follows: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the elementary level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS AT THE ELEMENTARY LEVEL

This section reports the results of the data analysis and provides a discussion of findings with regard to Sub-problem 1.1.

Statement of Sub-Problem 1.1

Sub-problem 1.1 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the elementary level?

Findings

The mean and standard deviation of the DPI for the total instructional time provided in each of the major subject areas at the elementary level are shown in Table 4.1. The major findings noted were as follows:

Table 4.1

Variation of DPI's for the Total Instructional Time Provided
in Major Subject Areas at the Elementary Level

Major Subject Areas	Percentage of Total Program	DPI	
		Mean	Standard Deviation
Language Arts	41.1	94.00	11.09
Mathematics	15.3	35.16	4.13
Social Studies	9.5	22.80	4.17
Science	7.2	16.37	3.72
Personal Development	11.4	26.27	5.34
Fine Arts	8.9	20.28	3.19
Second Languages	1.7	3.89	6.29
Other Subject Areas	4.8	10.90	11.24

Total Program	100.00	228.67	13.70

1. The greatest proportion of the instructional program at the elementary level was devoted to language arts (41.1 percent), followed by mathematics (15.4 percent), personal development (11.4 percent), social studies (9.5 percent), fine arts (8.9 percent), second languages (1.7 percent), and other subjects (4.8 percent).
2. Except in the case of second languages, the standard deviation of each DPI tended to vary directly with the mean.
3. Slightly more than one-half of the total instructional program provided at the elementary level was devoted to the study of language arts and mathematics.

Discussion of the Findings

Each of the major subject areas listed in Table 4.1, except the category designated second languages, represented components of the core

curriculum outlined in the provincially prescribed program of studies. Thus, any program offering in second languages or those indicated as "other subject areas" in Table 4.1 were provided as a result of local option to do so.

PREDICTORS OF VARIANCE OF DPI'S FOR TOTAL INSTRUCTIONAL
TIME PROVIDED IN SUBJECT AREAS AT THE ELEMENTARY LEVEL

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 1.2.

Statement of Sub-Problem 1.2

Sub-Problem 1.2 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas at the elementary level?

Findings

Language Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in language arts at the elementary level are displayed in Table 4.2. Seven variables entered the regression equation which had an overall F ratio of 4.203 significant at the 0.001 level. The multiple R for these variables was 0.556 and R^2 was 0.309. The first two variables selected accounted for 20.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for junior high instruction, (3) Region 5, (4) Region 3, (5) amount of equalized

Table 4.2

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Language Arts at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.405	0.164	-0.405	-0.341
Per pupil expenditure for junior high instruction	0.427	0.182	-0.171	-0.083
Region 5	0.459	0.210	0.181	0.190
Region 3	0.473	0.224	0.140	0.176
Amount of equalized assessment per pupil	0.481	0.231	0.134	-0.210
Per pupil expenditures for operation and maintenance	0.491	0.241	0.231	0.214
Total SGR grants received per pupil	0.504	0.254	-0.154	-0.151

F ratio = 4.125 Probability = 0.001

^a Only includes predictors where the R² change was at least 0.010.

assessment per pupil, (6) per pupil expenditure for operation and maintenance, and (7) total SGR grants received per pupil.

Table 4.2 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in language arts at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the jurisdiction was located in either Region 3 or 5;

2. Wealth

- a. higher if the amount of equalized assessment per pupil was low;

3. Revenue

- a. higher if the total SGR grants received per pupil was low;

4. Expenditure

- a. higher if the per pupil expenditure for junior high instruction was low; and,
- b. higher if the per pupil expenditure for operation and maintenance was high.

Mathematics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in mathematics at the elementary level are shown in Table 4.3. Five variables entered the regression equation which had an overall F ratio of 4.511 significant at the 0.001 level. The multiple R for these variables was 0.454 and R^2 was 0.206. The first three vari-

Table 4.3

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Mathematics at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.267	0.072	-0.267	-0.279
Region 1	0.371	0.138	0.182	0.276
Per pupil expenditure for administration	0.410	0.168	-0.200	-0.263
Ratio of SFPP grants received to total operational revenue	0.438	0.191	-0.126	-0.175
Net supplementary requisition mill rate	0.454	0.206	-0.052	-0.123

F ratio = 4.511 Probability = .001

^a Only includes predictors where the R² change was at least 0.010.

ables selected accounted for 16.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) Region 1, (3) per pupil expenditure for administration, (4) ratio of SFPF grants received to total operational revenue, and (5) net supplementary requisition mill rate.

Table 4.3 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in mathematics at the elementary level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the jurisdiction was located in Region 1;
2. Fiscal effort
 - a. higher if the net supplementary requisition mill rate was low;
3. Revenue
 - a. higher if the ratio of SFPF grants received to total operational revenue was low; and,
4. Expenditure
 - a. higher if the per pupil expenditure for administration was low.

Social Studies. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in social studies at the elementary level are reported in Table 4.4. Nine variables entered the regression equation which had an overall F ratio of 3.532 significant at the 0.001 level. The multiple R for these variables was 0.526 and R^2 was 0.277.

Table 4.4

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Social Studies at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.333	0.111	-0.333	-0.210
Region 6	0.365	0.134	-0.127	-0.167
Senior high enrolment	0.390	0.152	0.194	2.982
Elementary enrolment	0.445	0.198	0.169	-2.521
Region 7	0.468	0.219	0.099	-0.394
Unsupported debt mill rate	0.485	0.235	0.031	0.162
Ratio of SGR grants received to total operational revenue	0.504	0.254	-0.207	-0.147
Per pupil expenditure for elementary instruction	0.515	0.265	0.183	0.143
Per pupil expenditure for junior high instruction	0.526	0.277	-0.093	-0.119

F ratio = 3.532 Probability = 0.001

^a Only includes predictors where the R² change was at least 0.010.

The first four variables selected accounted for 19.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) Region 6, (3) senior high enrolment, (4) elementary enrolment, (5) Region 7, (6) unsupported debt mill rate, (7) ratio of SGR grants received to total operational revenue, (8) per pupil expenditure for elementary instruction, and (9) per pupil expenditure for junior high instruction.

Table 4.4 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in social studies at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in either Region 6 or 7;
- c. higher if the senior high enrolment was high;
- d. higher if the elementary enrolment was low;

2. Wealth

- a. higher if the unsupported debt mill rate was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

4. Expenditure

- a. higher if the per pupil expenditure for elementary instruction was high; and,
- b. higher if the per pupil expenditure for junior high instruction was low.

Science. The regression results for the most important set of predictor variables of variance found in the DPI for total instructional time provided in science at the elementary level are displayed in Table 4.5. Nine variables entered the regression equation which had an overall F ratio of 4.358 significant at the 0.000 level. The multiple R was 0.566 and R^2 was 0.321. The first three variables selected accounted for 22.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) Region 3, (2) urban pupil ratio, (3) Region 1, (4) Region 2, (5) Region 3, (6) Region 6, (7) sparsity of pupil population, (8) ratio of SFPF grants received to total operational revenue, and (9) unsupported debt mill rate.

Table 4.5 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in science at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in either Region 1, 2, 3, 4 or 6;
- b. higher if the urban pupils ratio was low;
- c. lower the greater the degree of sparsity of pupil population;

2. Wealth

- a. higher if the unsupported debt mill rate as low; and,

3. Revenue

- a. higher if the ratio of SFPF grants received to total operational revenue was high.

Table 4.5

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Science at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Region 4	0.379	0.143	0.379	0.549
Urban pupil ratio	0.437	0.191	-0.268	-0.383
Region 1	0.472	0.223	0.080	0.365
Region 2	0.500	0.250	0.055	0.290
Region 3	0.517	0.268	-0.074	0.221
Region 6	0.530	0.281	-0.185	0.148
Sparsity of pupil population	0.541	0.292	0.145	-0.187
Ratio of SFPF grants received to total operational revenue	0.553	0.306	0.129	0.153
Unsupported debt mill rate	0.566	0.321	0.123	0.134

F ratio = 4.358 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Personal Development. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in personal development at the elementary level are shown in Table 4.6. Seven variables entered the regression equation which had an overall F ratio of 4.3777 significant at the 0.000 level. The multiple R for these variables was 0.515 and R^2 was 0.265. The first three variables selected accounted for 15.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) school building utilization ratio, (2) per pupil expenditure for elementary instruction, (3) urban pupil ratio, (4) total SFPF grants received per pupil, (5) Region 6, (6) Region 2, and (7) Region 3.

Table 4.6 indicates that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in personal development at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in either Region 2, 3 or 6;
- b. higher if the school building utilization ratio was low;
- c. higher if the urban pupil ratio was low;

2. Expenditure

- a. higher if the per pupil expenditure for elementary instruction was low.

Fine Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instruc-

Table 4.6

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Personal Development at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
School building utilization ratio	0.259	0.067	-0.259	-0.362
Per pupil expenditure for elementary instruction	0.343	0.118	-0.154	-0.192
Urban pupil ratio	0.391	0.153	-0.248	-0.349
Total SFPF grants received per pupil	0.446	0.199	-0.032	-0.314
Region 6	0.481	0.231	0.128	0.249
Region 2	0.497	0.2457	0.018	0.178
Region 3	0.515	0.265	0.053	0.146

F ratio = 4.577 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

tional time provided in fine arts at the elementary level are displayed in Table 4.7. Ten variables entered the regression equation which had an overall F ratio of 4.412 significant at the 0.000 level. The multiple R for these variables was 0.591 and R^2 was 0.350. The first four variables selected accounted for 26.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) sparsity of pupil population, (3) amount of supplementary requisition levied per pupil, (4) net supplementary requisition mill rate, (5) urban pupil ratio, (6) unsupported debt mill rate, (7) ratio of SFPP grants received to total operational revenue, (8) per pupil expenditure for junior high instruction, (9) ratio of supplementary requisition levied to total operational revenue, and (10) per pupil expenditure for administration.

Table 4.7 reveals that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in fine arts at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was sparsely populated;
- b. higher if the urban pupil ratio was low;

2. Wealth

- a. higher if the unsupported debt mill rate was high;

3. Fiscal efforts

- a. higher if the amount of supplementary requisition levied per pupil was low;

Table 4.7

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Fine Arts at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.387	0.150	-0.387	-0.433
Sparsity of pupil population	0.437	0.191	0.319	0.048
Amount of supplementary requisition levied per pupil	0.478	0.229	0.035	-0.736
Net supplementary requisition mill rate	0.514	0.264	0.202	0.234
Urban pupil ratio	0.534	0.285	-0.308	-0.283
Unsupported debt mill rate	0.549	0.302	-0.052	-0.224
Ratio of SFPF grants received to total operational revenue	0.563	0.317	0.315	0.142
Per pupil expenditure for junior high instruction	0.572	0.328	-0.081	0.126
Ratio of supplementary requisition levied to total operational revenue	0.581	0.338	0.140	0.468
Per pupil expenditure for administration	0.591	0.350	-0.220	0.137

F ratio = 4.412 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- b. higher if the net supplementary requisition mill rate was high;

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the ratio of SFPF grants received to total operational revenue was high;
- c. higher if the ratio of supplementary requisition levied to total operational revenue was high;

5. Expenditure

- a. higher if the per pupil expenditure for junior high instruction was high; and,
- b. higher if the per pupil expenditure for administration was high.

Second Languages. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in second languages at the elementary level are reported in Table 4.8. Nine variables entered the regression equation which had an overall F ratio of 4.730 significant at the 0.000 level. The multiple R for these variables was 0.582 and R^2 was 0.339. The first four variables selected accounted for 26.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) Region 2, (3) unsupported debt mill rate, (4) school building utilization ratio, (5) per pupil expenditure for elementary instruction, (6) ratio of supplementary requisition levied to total operational revenue, (7) total SGR grants received per pupil, (8) amount of equal-

Table 4.8

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Second Languages at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SFPP grants received to total operational revenue	0.336	0.113	0.336	-0.298
Region 2	0.397	0.157	0.242	0.090
Unsupported debt mill rate	0.446	0.199	-0.027	-0.499
School building utilization ratio	0.517	0.268	0.229	0.432
Per pupil expenditure for elementary instruction	0.538	0.289	-0.004	0.207
Ratio of supplementary requisition levied to total operational revenue	0.548	0.300	-0.288	-0.378
Total SGR grants received per pupil	0.563	0.317	0.297	0.741
Amount of equalized assessment per pupil	0.573	0.329	-0.217	0.236
Per pupil expenditure for operation and maintenance	0.582	0.339	-0.167	-0.168

F ratio = 4.730 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

ized assessment per pupil, and (9) per pupil expenditure for operation and maintenance.

Table 4.8 shows that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in second languages at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in Region 2;
- b. higher if the school building utilization ratio was high;

2. Wealth

- a. higher if the unsupported mill rate was low;
- b. higher if the amount of equalized assessment per pupil was high;

3. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was low;

4. Revenue

- a. higher if the ratio of SGR grants to total operational revenues was low;

5. Expenditure

- a. higher if the per pupil expenditure for elementary instruction was high; and,
- b. higher if the per pupil expenditure for operation and maintenance was low.

Other Subject Areas. The regression results for the most important set of predictor variables of variance found in the DPI for the total

instructional time provided in other subject areas at the elementary level are displayed in Table 4.9. Five variables entered the regression equation which had an overall F ratio of 15.945 significant at the 0.000 level. The multiple R for these variables was 0.692 and R^2 was 0.478. The first two variables selected accounted for 41.2 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) ratio of supplementary requisition levied to total operational revenue, (3) per pupil expenditure for administration, (4) Region 1, and (5) per pupil expenditure for transportation.

Table 4.9 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in other subject areas at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a separate school district;
- b. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was low;

3. Expenditure

- a. higher if the per pupil expenditure for administration was high; and,
- b. higher if the per pupil expenditure for transportation was low.

Table 4.9

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Other Subject Areas at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.621	0.385	0.621	0.383
Ratio of supplementary requisition levied to total operational revenue	0.642	0.412	-0.467	-0.232
Per pupil expenditure for administration	0.662	0.438	0.289	0.251
Region 1	0.680	0.462	0.077	-0.163
Per pupil expenditure for transportation	0.692	0.498	-0.420	-0.171

F ratio = 15.945 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Discussion of the Findings

In summary, the findings of this study indicated that the total instructional time provided in each of the major subject areas at the elementary level varied along three dimensions outlined below.

1. In the total amount of variation that could be accounted for in terms of the set of predictor variables examined in the study. The total amount of variance explained in the DPI for each of the major subject area groupings was as follows:
 - a. 35.0 percent for fine arts;
 - b. 33.9 percent for second languages;
 - c. 32.1 percent for science;
 - d. 27.7 percent for social studies;
 - e. 26.5 percent for personal development;
 - f. 25.4 percent for language arts;
 - g. 20.6 percent for mathematics; and,
 - h. 47.8 percent for other subjects offered.
2. In regard to the nature and extent to which the most important single predictor accounted for the variance found in each DPI. The following results were noted:
 - a. Jurisdiction type accounted for 16.4 percent of the variance found in the DPI for language arts, 7.2 percent of the variance found in the DPI for mathematics, and 11.1 percent of the variance found in the DPI for social studies.
 - b. The ratio of SGR grants received to total operational revenue accounted for 15.0 percent of the variance found in the DPI for fine arts, and 11.3 percent of the variance found in the DPI for second languages.

- c. Location in Region 4 accounted for 14.3 percent of the variance found in the DPI for science.
 - d. The school building utilization ratio accounted for 6.7 percent of the variance found in the DPI for personal development.
3. In the impact that certain measures (i.e., when the values of other predictors were held constant) from each of the five categories of predictor variables had on various DPI's. These are summarized below:
- a. Demographic characteristics
 - i. The DPI tended to be higher for language arts in Regions 3 and 5, mathematics in Region 1, science in Regions 2, 3, 4 and 6, second languages in Region 2, and social studies in Regions 1, 2, 3, 4 and 5.
 - ii. The DPI for each of language arts, mathematics and social studies tended to be higher if a jurisdiction was a public school district.
 - iii. The DPI for second languages tended to be higher while that for science tended to be lower in sparsely populated jurisdictions.
 - iv. The DPI for each of personal development and fine arts tended to be higher if the urban pupil ratio was low.
 - v. The DPI for social studies tended to be higher if the elementary enrolment was low and the senior high enrolment was high.

b. Wealth

- i. The DPI for social studies tended to be higher while that for fine arts tended to be lower if the unsupported debt mill rate was high.
- ii. The DPI for each of language arts and fine arts tended to be lower if the amount of equalized assessment per pupil was high.

c. Fiscal effort

- i. The DPI for mathematics tended to be lower while that for fine arts tended to be higher if the net supplementary requisition mill rate was high.
- ii. The DPI for fine arts tended to be higher while that for second languages lower if the ratio of supplementary requisition levied to total operational revenue was high.
- iii. The DPI for fine arts tended to be lower if the amount of supplementary requisition levied per pupil was high.

d. Revenue

- i. The DPI for each of language arts, social studies, fine arts and second languages tended to be higher if the ratio of SGR grants received to total operational revenue was low.
- ii. The DPI for science and fine arts tended to be higher while that for mathematics tended to be lower if the ratio of SFPPF grants received to total operational revenue was high.

e. Expenditure

- i. The DPI for each of social studies and second languages tended to be higher while that for personal development tended to be lower if the per pupil expenditure for elementary instruction was high.
- ii. The DPI for each of language arts and social studies tended to be higher while that for fine arts tended to be lower if the per pupil expenditure for junior high instruction was low.
- iii. The DPI for mathematics tended to higher while that for fine arts tended to be lower if the per pupil expenditure for administration was low.
- iv. The DPI for language arts tended to be higher while that for second languages tended to be lower if the per pupil expenditure for operation and maintenance was high.

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL
TIME PROVIDED AT ELEMENTARY GRADE LEVELS

This section outlines the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 1.3.

Statement of Sub-Problem 1.3

Sub-problem 1.3 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the elementary grades?

Findings

The nature and extent of variance of the DPI for the total instructional time provided in each of the elementary grades are shown in Table 4.10.

The following were the major findings noted:

1. The average amount of instructional time provided in each of the elementary grades ranged from about 37 credit-equivalent units in grade one to over 38 credit-equivalent units in grades two through six.
2. Although the DPI was lowest at the grade one level, there was a slightly greater degree of variation found at this level than at each of the other elementary grade levels.

Discussion of the Findings

The slightly lower DPI at the grade one level as well as the somewhat greater degree of variation noted in this index was due most likely to two factors. First, some jurisdictions designate a shorter instructional day for grade one pupils. Second, some jurisdictions also designate a shorter instructional year for these pupils in order to facilitate the holding of orientation programs for beginning pupils at the close of each school year.

PREDICTORS OF VARIANCE OF DPI'S FOR TOTAL INSTRUCTIONAL
TIME PROVIDED AT ELEMENTARY GRADE LEVELS

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 1.4.

Table 4.10

Variation of DPI's for the Total Instructional
Time Provided at Elementary Grade Levels

Grade	Percentage of Total Program	DPI	
		Mean	Standard Deviation
1	16.16	36.95	3.21
2	16.70	38.19	2.27
3	16.69	38.16	2.42
4	16.75	38.31	2.55
5	16.81	38.44	2.51
6	16.89	38.62	2.56
Total Program	100.00	228.67	13.70

Statement of Sub-Problem 1.4

Sub-problem 1.4 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the elementary grades?

Findings

Grade One. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade one level are displayed in Table 4.11. Seven variables entered the regression equation which had an overall F ratio of 5.423 significant at the 0.000 level. The multiple R for these variables was 0.556 and R^2 was 0.309. The first two variables selected accounted for 20.7 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) urban pupil ratio, (2) ratio of supplementary requisition levied to total operational revenue, (3) Region 6, (4) per pupil expenditure for senior high instruction, (5) Region 2, (6) Region 6, and (7) per pupil expenditure for junior high instruction.

Table 4.11 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade one level tended to be as follows:

1. Demographic characteristics
 - a. higher if the urban pupil ratio was low;
 - b. lower if the jurisdiction was located in either Region 6 or 7;

Table 4.11

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade One Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Urban pupil ratio	0.286	0.082	-0.286	-0.300
Ratio of supplementary requisition levied to total operational revenue	0.455	0.207	-0.256	-0.273
Region 6	0.483	0.232	-0.250	-0.177
Per pupil expenditure for senior high instruction	0.503	0.254	-0.176	-0.212
Region 2	0.532	0.283	0.217	0.191
Region 7	0.545	0.297	-0.323	-0.132
Per pupil expenditure for junior high instruction	0.556	0.309	-0.006	0.110

F ratio = 5.423 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- c. higher if the jurisdiction was located in Region 2;
- 2. Fiscal effort
 - a. higher if the ratio of supplementary requisition levied to total operational revenue was low;
- 3. Expenditure
 - a. higher if the per pupil expenditure for senior high instruction was low; and,
 - b. higher if the per pupil expenditure for junior high instruction was high.

Grade Two. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade two level are displayed in Table 4.12. Nine variables entered the regression equation which had an overall F ratio of 4.203 significant at the 0.000 level. The multiple R for these variables was 0.560 and R^2 was 0.313. The first two variables selected accounted for 16.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount supplementary requisition levied per pupil, (2) jurisdiction type, (3) Region 6, (4) per pupil expenditure for transportation, (5) urban pupil ratio, (6) total operational expenditure per pupil, (7) ratio of SGR grants received to total operational revenue, (8) per pupil expenditure for administration, and (9) Region 1.

Table 4.12 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade two level tended to be as follows:

Table 4.12

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Two Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.377	0.142	-0.377	-0.625
Jurisdiction type	0.410	0.168	0.046	-0.108
Region 6	0.430	0.185	-0.168	-0.144
Per pupil expenditure for transportation	0.448	0.201	-0.293	-0.716
Urban pupil ratio	0.480	0.230	-0.007	-0.365
Total operational expenditure per pupil	0.504	0.254	-0.232	0.506
Ratio of SGR grants received to total operational revenue	0.534	0.286	0.085	-0.281
Per pupil expenditure for administration	0.546	0.298	-0.085	0.159
Region 1	0.560	0.313	-0.009	-0.138

F ratio = 4.203 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. lower if the jurisdiction was located in either Region 1 or 6;
 - c. higher if the urban ratio was low;
2. Fiscal effort
 - a. higher if the amount of supplementary requisition levied per pupil was low;
3. Revenue
 - a. higher if the ratio of SGR grants received to total operational revenue was low;
4. Expenditure
 - a. higher if the per pupil expenditure for transportation was low;
 - b. higher if the total operational expenditure per pupil was high; and,
 - c. higher if the per pupil expenditure for administration was high.

Grade Three. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade three level are shown in Table 4.13. Ten variables entered the regression equation which had an overall F ratio of 2.604 significant at the 0.009 level. The multiple R for these variables was 0.491 and r^2 was 0.241. The first three variables selected accounted for 12.1 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) jurisdiction type, (3) school building utilization ratio, (4) Region 1, (5) per pupil

expenditure for administration, (6) Region 6, (7) per pupil expenditure for transportation, (8) total expenditure per pupil, (9) unsupported debt mill rate, and (10) urban pupil ratio.

Table 4.13 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade three level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building was high;
- c. lower if the jurisdiction was located in either Region 1 or 6;
- d. higher if the urban pupil ratio was low;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

4. Expenditure

- a. higher if the per pupil expenditure for administration was high;
- b. higher if the per pupil expenditure for transportation was low; and,
- c. higher if the total operational expenditure per pupil was high.

Grade Four. The regression results for this most important set of predictor variables of variance found in the DPI the total instruc-

Table 4.13

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Three Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.242	0.059	-0.242	-0.480
Jurisdiction type	0.304	0.092	-0.040	-0.223
School building utilization ratio	0.348	0.121	0.219	0.296
Region 1	0.370	0.137	-0.090	-0.198
Per pupil expenditure for administration	0.397	0.157	-0.021	0.126
Region 6	0.417	0.174	-0.124	-0.102
Per pupil expenditure for transportation	0.432	0.186	-0.198	-0.507
Total operational expenditure per pupil	0.453	0.205	-0.124	0.525
Unsupported debt mill rate	0.477	0.228	0.035	-0.239
Urban pupil ratio	0.491	0.241	0.015	-0.216

F ratio = 2.604 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

tional time provided at the grade four level are displayed in Table 4.14. Ten variables entered the regression equation which had an overall F ratio of 3.042 significant at the 0.003 level. The multiple R for these variables was 0.520 and R^2 was 0.271. The first two variables selected accounted for 11.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) jurisdiction type, (3) school building utilization ratio, (4) net supplementary requisition mill rate, (5) per pupil expenditure for transportation, (6) urban pupil ratio, (7) per pupil expenditure for transportation, (8) total operational expenditure per pupil, (9) unsupported debt mill rate, and (10) sparsity of pupil population.

Table 4.14 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the values of the other predictors were held constant, the DPI for the total instructional time provided at the grade four level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the urban pupil ratio was low;
- d. lower if the jurisdiction was sparsely populated;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

Table 4.14

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Four Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.260	0.068	-0.260	-0.371
Jurisdiction type	0.336	0.113	-0.056	-0.217
School building utilization ratio	0.363	0.132	0.193	0.301
Net supplementary requisition mill rate	0.382	0.146	-0.129	-0.107
Per pupil expenditure for transportation	0.401	0.161	-0.206	-0.684
Urban pupil ratio	0.430	0.185	-0.044	-0.586
Per pupil expenditure for administration	0.461	0.212	-0.035	0.089
Total operational expenditure per pupil	0.471	0.222	-0.146	0.479
Unsupported debt mill rate	0.505	0.256	0.020	-0.297
Sparsity of pupil population	0.520	0.271	-0.005	-0.220

F ratio = 3.042 Probability = 0.003

^a Only includes predictors where the R² change was at least 0.010.

- b. higher if the net supplementary requisition mill rate was low;

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low;
- b. higher if the per pupil expenditure for administration was high; and,
- c. higher if the total operational expenditure per pupil was high.

Grade Five. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade five level are displayed in Table 4.15. Twelve variables entered the regression equation which had an overall F ratio of 3.075 significant at the 0.001 level. The multiple R for these variables was 0.562 and R^2 was 0.316. The first three variables selected accounted for 14.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) jurisdiction type, (3) net supplementary requisition mill rate, (4) school building utilization ratio, (5) per pupil expenditure for administration, (6) ratio of the supplementary requisition levied to total operational expenditure, (7) urban pupil ratio, (8) per pupil expenditure for transportation, (9) unsupported debt mill rate, (10) total operational expenditure per pupil, (11) ratio of SFPPF grants received to total operational revenue, and (12) sparsity of pupil population.

Table 4.15 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the

Table 4.15

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Five Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.281	0.079	-0.281	-0.932
Jurisdiction type	0.353	0.125	-0.048	-0.169
Net supplementary requisition mill rate	0.382	0.146	-0.163	-0.113
School building utilization ratio	0.405	0.164	0.191	0.338
Per pupil expenditure for administration	0.423	0.179	0.000	0.184
Ratio of supplementary requisition levied to total operational revenue	0.446	0.199	-0.226	0.411
Urban pupil ratio	0.465	0.217	-0.088	-0.554
Per pupil expenditure for transportation	0.490	0.241	-0.173	-0.573
Unsupported debt mill rate	0.505	0.255	0.000	-0.300
Total operational expenditure per pupil	0.530	0.281	-0.164	0.658
Ratio of SFPF grants received to total operational revenue	0.551	0.304	0.130	0.191
Sparsity of pupil population	0.562	0.316	0.045	-0.204

F ratio = 3.075 Probability = 0.001

^a Only includes predictors where the R² change was at least 0.010.

DPI for the total instructional time provided at the grade five level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the urban pupil ratio was low;
- d. lower if the jurisdiction was sparsely populated;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;
- b. higher if the net supplementary requisition mill rate was low;
- c. higher if the ratio of supplementary requisition levied to total operational expenditure was high;

4. Revenue

- a. higher if the ratio of SFPPF grants received to total operational revenue was high;

5. Expenditure

- a. higher if the per pupil expenditure for administration was high;
- b. higher if the per pupil expenditure for transportation was low; and,
- c. higher if the total operational expenditure per pupil was high.

Grade Six. The regression results for the most important set of predictor variables of variance found in the DPI for the total instruc-

tional time provided at the grade six level are displayed in Table 4.16. Ten variables entered the regression equation which had an overall F ratio of 2.911 significant at the 0.003 level. The multiple R for these variables was 0.512 and R^2 was 0.262. The first three variables selected accounted for 13.9 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) jurisdiction type, (3) school building utilization ratio, (4) per pupil expenditure for administration, (5) ratio of SGR grants received to total operational revenue, (6) per pupil expenditure for senior high instruction, (7) urban pupil ratio, (8) per pupil expenditure for transportation, (9) total operational expenditure per pupil, and (10) unsupported debt mill rate.

Table 4.16 reveals that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade six level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the urban pupil ratio was low;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

Table 4.16

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Six Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.281	0.079	-0.281	-0.616
Jurisdiction type	0.333	0.111	-0.017	-0.184
School building utilization ratio	0.372	0.139	0.226	0.305
Per pupil expenditure for administration	0.407	0.165	0.021	0.248
Ratio of SGR grants received to total operational revenue	0.431	0.186	0.032	-0.250
Per pupil expenditure for senior high instruction	0.450	0.202	0.007	0.103
Urban pupil ratio	0.462	0.213	-0.062	-0.347
Per pupil expenditure for transportation	0.481	0.231	-0.156	-0.444
Total operational expenditures per pupil	0.493	0.243	-0.161	0.428
Unsupported debt mill rate	0.512	0.262	0.013	-0.211

F ratio = 2.911 Probability = 0.003

^a Only includes predictors where the R² change was at least 0.010.

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

5. Expenditure

- a. higher if the per pupil expenditure for administration was high;
- b. higher if the per pupil expenditure for senior high instruction was high;
- c. higher if the per pupil expenditure for transportation was low; and,
- d. higher if the total operational expenditure per pupil was high.

Discussion of the Findings

In summary, the findings of this study generally indicated that the total instructional time provided at each of the elementary grade levels did not vary substantially between successive grade levels. Overall, only 25 to 32 percent of the variance found in each of the DPI's could be accounted for in terms of the predictor variables examined in the study. It was noted that the amount of supplementary requisition levied per pupil was the most important single predictor of variance found in the DPI at each of the grade levels, except grade one.

On the whole, there was a fair degree of consistency noted in the relationship between the total instructional time provided at each of the elementary grade levels and a certain number of measures (i.e., when the effects of other predictors were held constant) from each of the

five categories of predictor variables examined in the study. The findings were as follows:

1. Demographic characteristics

- a. The DPI for each of the elementary grades tended to be higher if the urban pupil ratio was low.
- b. Except for grade one, the DPI for each of the other elementary grades tended to be higher if the jurisdiction was a public school district.
- c. Except for grades one and two, the DPI for each of the other elementary grades tended to be higher if the school building utilization ratio was high.
- d. The DPI for each of grades four and five tended to be lower in sparsely populated jurisdictions.
- e. The DPI tended to be lower for grade one in Regions 6 and 7, and higher in Region 2; and lower for each of grades two and three in Regions 1 and 6.

2. Wealth

- a. Except for grades one and two, the DPI for each of the other elementary grades tended to be higher if the unsupported debt mill rate was low.

3. Fiscal effort

- a. Except for grade one, the DPI for each of the other elementary grades tended to be higher if the amount of supplementary requisition levied per pupil was low.
- b. The DPI for each of grades four and five tended to be higher if the net supplementary requisition mill rate was low.

- c. The DPI for grade one tended to be higher while that for grade five tended to be lower if the ratio of the supplementary requisition levied to total operational revenue was low.

4. Revenue

- a. The DPI for each of grades two and six tended to be higher if the ratio of SGR grants received to total operational revenue was low.
- b. The DPI for grade five tended to be higher if the ratio of SFPPF grants to total operational revenue was high.

5. Expenditure

- a. Except for grade one, the DPI for each of the other elementary grades tended to be higher if
 - i. the per pupil expenditure for administration was high;
 - ii. the per pupil expenditure for transportation was low;
 - and,
 - iii. the total operational expenditure per pupil was high.

VARIATION OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT THE ELEMENTARY LEVEL

This section presents the results of the data analysis and provides a discussion of the findings with regard to Sub-problem 1.5.

Statement of Sub-Problem 1.5

Sub-problem 1.5 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided at the elementary level?

Findings

As shown previously in Table 4.10, the DPI for the total instructional time provided at the elementary level had a mean of 228.7 credit-equivalent units and a standard deviation of 13.7.

Discussion of the Findings

With reference to the overall elementary DPI, the findings of the study generally indicate that there was not a substantial amount of variation noted among school jurisdictions in Alberta in total program offering at the elementary level. While actual program content may vary among jurisdictions, the total amount of scheduled instructional time does not appear to vary to any significant extent.

PREDICTORS OF VARIANCE OF THE DPI FOR THE TOTAL INSTRUCTIONAL
TIME PROVIDED AT THE ELEMENTARY LEVEL

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 1.6.

Statement of Sub-Problem 1.6

Sub-problem 1.6 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the elementary level?

Findings

The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the elementary level are shown in Table 4.17. Eleven variables entered the regression equation which had an overall F ratio of

3.293 significant at the 0.001 level. The multiple R for these variables was 0.556 and R^2 was 0.309. The first two variables selected accounted for 14.5 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) jurisdiction type, (3) per pupil expenditure for administration, (4) Region 6, (5) Region 1, (6) school building utilization ratio, (7) urban pupil ratio, (8) per pupil expenditure for transportation, (9) total operational expenditure per pupil, (10) unsupported debt mill rate, and (11) ratio of SGR grants received to total operational revenue.

Table 4.17 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the elementary level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in either Region 1 or 6;
- c. higher if the school building utilization ratio was high;
- d. higher if the urban pupil ratio was low;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

Table 4.17

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Elementary Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.309	0.095	-0.309	-0.687
Jurisdiction type	0.381	0.145	-0.042	-0.164
Per pupil expenditure for administration	0.404	0.163	-0.014	0.193
Region 6	0.424	0.180	-0.155	-0.109
Region 1	0.441	0.194	-0.014	-0.117
School building utilization ratio	0.453	0.205	0.170	0.260
Urban pupil ratio	0.468	0.219	-0.101	-0.403
Per pupil expenditure for transportation	0.497	0.247	-0.161	-0.576
Total operational expenditure per pupil	0.509	0.259	-0.145	-0.613
Unsupported debt mill rate	0.544	0.296	0.006	-0.248
Ratio of SGR grants received to total operational revenue	0.556	0.309	0.071	-0.181

F ratio = 3.293 Probability = 0.001

^a Only includes predictors where the R² change was at least 0.010.

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

5. Expenditure

- a. higher if the per pupil expenditure for administration was high;
- b. higher if the per pupil expenditure for transportation was low; and,
- c. higher if the total operational expenditure per pupil was high.

Discussion of the Findings

Although there was not a substantial degree of variation found in the overall DPI, public school districts which had a low supplementary requisition on a per pupil basis tended to provide more extensive curricular offerings at the elementary level.

SUMMARY OF CHAPTER 4

The findings of this study indicate that the total instructional time provided in major subject areas at each of the elementary grade levels did not vary substantially among Alberta school jurisdictions. Only about 30 percent of the variation found in the DPI at each elementary grade level could be accounted for by the set of predictor variables examined in the study. Except at the grade one level, the most important single predictor of variance in the DPI at each elementary grade level was the amount of supplementary requisition levied per pupil.

The findings of the study also indicate that the DPI's representative of the total instructional time provided in each of the major subject areas at the elementary level varied along four major dimensions. First, in the total amount of instructional time which generally was provided in each of the major subject areas. It was noted, for example, that the greatest proportion of the elementary program was devoted to the study of language arts (41.4 percent) while the least was devoted to the study of second languages (1.7 percent). Second, in the amount of variation found in the DPI for each of the major subject areas which could be accounted for in terms of the predictor variables examined in the study. The amount of explained variation for each of the major subject areas ranged from 20.6 percent for mathematics to 35.0 percent for fine arts. Third, in the nature of the predictor variable which was found to account for the greatest proportion of variance of the DPI for each of the major subject areas. Jurisdiction type, the predictor selected first most often, was found to be the most important single predictor of variance accounted for in the DPI for each of language arts, mathematics and science. Fourth, in the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five broad categories of predictor variables had on various subject area DPI's. A total of 21 of the 32 predictor variables examined in the study entered one or more of the regression equations.

With reference to the DPI representative of the total instructional time provided in major subject areas at all elementary grade levels, it was found that the amount of supplementary requisition levied per pupil and the jurisdiction type accounted for 14.5 percent of the 30.9 percent of variance noted. In general, public school districts which had a low

supplementary requisition on a per pupil basis tended to provide more extensive curricular program offerings at the elementary level.

Chapter 5

ANALYSIS AND FINDINGS AT THE JUNIOR HIGH LEVEL

This chapter presents the results of the data analysis and provides a discussion of the findings with respect to Sub-problems 2.1 through 2.6 of Problem 2. Problem 2 was stated as follows: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the junior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS AT THE ELEMENTARY LEVEL

This section reports the results of the data analysis and provides a discussion of findings with regard to Sub-problem 2.1.

Statement of Sub-Problem 2.1

Sub-problem 2.1 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the junior high level?

Findings

The mean and standard deviation of the DPI for the total instructional time provided in each of the major subject areas at the junior high level are shown in Table 5.1. The major findings noted were as follows:

Table 5.1

Extent of Variation in DPI's for the Total Instructional Time
Provided in Major Subject Areas at the Junior High Level

Major Subject Areas	Percentage of Total Program	DPI	
		Mean	Standard Deviation
Language Arts	21.32	32.37	7.12
Mathematics	12.77	19.39	3.57
Social Studies	15.78	23.95	5.84
Science	13.67	20.75	6.71
Personal Development	13.56	20.59	5.77
Fine Arts	9.97	15.14	10.04
Second Languages	4.47	6.79	6.05
Business Education	1.26	1.91	2.21
Home Economics	3.52	5.35	4.06
Industrial Education (General)	3.22	4.89	3.84
Other Subject Areas	0.43	0.66	1.33

Total Program	100.00	151.79	27.02

1. The greatest proportion of the instructional program at the junior high level was devoted to language arts (21.1 percent), followed by social studies (15.8 percent), science (13.7 percent), personal development (13.6 percent), mathematics (12.8 percent), fine arts (10.0 percent), second languages (4.5 percent), home economics (3.5 percent), industrial education general (3.2 percent), business education (1.3 percent) and other subjects (0.4 percent).
2. Slightly more than one-third of the total instructional program at the junior high level was devoted to instruction in language arts and social studies.
3. About 13 percent of the instructional program at the junior high level was devoted to personal development, science and mathematics.
4. The extent of the instructional program provided in second lan-

guages, home economics and industrial education (general) amount to less than 4 percent of the overall program.

5. Generally, there was much less variation in the DPI for the total instructional time provided in each of language arts, mathematics, social studies, science, and personal development than in each of the remaining major subject areas.

Discussion of the Findings

The bulk (about 87 percent) of the instructional program offered at the junior high level was devoted to those subject area categories which stemmed from the core curriculum outlined in the provincially prescribed program of studies, i.e., language arts, mathematics, social studies, science, personal development and fine arts. The remaining part (about 13 percent) of the instructional program was offered in second languages, business education, home economics, industrial education (general) and other subject areas considered to be optional.

PREDICTORS OF VARIANCE OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS AT THE JUNIOR HIGH LEVEL

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 2.2.

Statement of Sub-Problem 2.2

Sub-problem 2.2 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas at the junior high level?

Findings

Language Arts. As indicated in Table 5.2, the regression results for the variation found in the DPI for the total instructional time provided in language arts at the junior high level were not considered significant as the probability for the overall F ratio was 0.022. The single best predictor was the ratio of SGR grants received to total operational revenue which had a correlation coefficient (simple R) of -0.226 and R^2 of 0.051.

Mathematics. As shown in Table 5.3, the regression results for the prediction of variance in the DPI for the total instructional time provided in mathematics at the junior high level were not considered significant as the probability for the overall F ratio was 0.087. The single best predictor was jurisdiction type which had a correlation coefficient (simple R) of -0.187 and R^2 of 0.035.

Social Studies. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in social studies at the junior high level are shown in Table 5.4. Nine variables entered the regression equation which had an overall F ratio of 6.489 significant at the 0.000 level. The multiple R for those variables was 0.642 and R^2 was 0.413. The first three variables selected accounted for 26.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) urban pupil ratio, (2) Region 3, (3) per pupil expenditure for operation and maintenance, (4) school building utilization ratio, (5) per pupil expenditure for senior high instruction, (6) Region 2, (7) Region 7, (8) ratio of the supplementary requisition levied to total operational revenue, and (9) jurisdiction type.

Table 5.2

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Language Arts at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.226	0.051	-0.226	-0.130
School building utilization ratio	0.282	0.080	0.138	0.209
Region 6	0.327	0.107	0.190	0.172
Jurisdiction type	0.355	0.126	-0.190	-0.143
Per pupil expenditure for senior high instruction	0.372	0.138	-0.172	-0.116

F ratio = 2.793 Probability = 0.022

^a Only includes predictors where the R² change was at least 0.010.

Table 5.3

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Mathematics at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.187	0.035	-0.187	-0.145
Region 4	0.234	0.055	0.154	0.133
Per pupil expenditure for transportation	0.266	0.071	-0.179	-0.131

F ratio = 2.260 Probability = 0.087

^a Only includes predictors where the R² change was at least 0.010.

Table 5.4

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Social Studies at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Urban pupil ratio	0.398	0.158	0.398	0.284
Region 3	0.453	0.205	-0.207	-0.248
Per pupil expenditure for operation and maintenance	0.513	0.264	-0.317	-0.120
School building utilization ratio	0.541	0.292	0.268	0.164
Per pupil expenditure for senior high instruction	0.566	0.320	-0.140	-0.300
Region 2	0.582	0.339	0.204	0.217
Region 7	0.596	0.355	-0.076	-0.185
Ratio of the supplementary requisition levied to total operational revenue	0.616	0.379	-0.128	0.282
Jurisdiction type	0.642	0.413	0.352	0.291

F ratio = 6.489 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Table 5.4 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. The relationship between each predictor within each of these categories and the criterion variable when the values of the other predictors were held constant is summarized below. That is to say, the DPI for the total instructional time provided in social studies at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the urban pupil ratio was high;
- b. lower if the jurisdiction was located in either Region 3 or 7;
- c. higher if the jurisdiction was located in Region 2;
- d. higher if the school building utilization ratio was high;
- e. higher if the jurisdiction was a separate school district;

2. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was high;

3. Expenditure

- a. higher if the per pupil expenditure for operation and maintenance was low; and,
- b. higher if the per pupil expenditure for senior high instruction was low.

Science. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in science at the junior high level are shown in Table 5.5. Six variables entered the regression equation which had an overall F ratio of 3.849 significant at the 0.002 level. The multiple R for these variables was 0.460 and R^2 was 0.212. The first three vari-

Table 5.5

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Science at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.308	0.095	-0.308	-0.381
Net supplementary requisition mill rate	0.337	0.114	0.110	0.153
Per pupil expenditure for transportation	0.374	0.140	-0.034	-0.495
Total operational expenditure per pupil	0.403	0.163	-0.011	0.426
Ratio of SFPF grants received to total operational revenue	0.440	0.194	0.224	0.233
Region 2	0.460	0.212	0.095	0.135

F ratio = 3.849 Probability = 0.002

^a Only includes predictors where the R² change was at least 0.010.

ables selected accounted for 14.0 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) net supplementary requisition mill rate, (3) per pupil expenditure for transportation, (4) total expenditure per pupil, (5) ratio of SFPPF grants received to total operational revenue, and (6) Region 2.

Table 5.5 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in science at the junior high level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was located in Region 2;
2. Fiscal effort
 - a. higher if the net supplementary requisition mill rate was low;
3. Revenue
 - a. higher if the ratio of SGR grants received to total operational revenue was low;
 - b. higher if the ratio of SFPPF grants received to total operation revenue was high;
4. Expenditure
 - a. higher if the per pupil expenditure for transportation was low, and;
 - b. higher if the total operational expenditure per pupil was high.

Personal Development. The regression results for the most important set of predictor variables of variance found in the DPI for the

total instructional time provided in personal development at the junior high level are shown in Table 5.6. Thirteen variables entered the regression equation which had an overall F ratio of 1.034 significant at the 0.010 level. The multiple R for these variables was 0.530 and R^2 was 0.281. The first four variables selected accounted for 14.2 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) per pupil expenditure for senior high instruction, (2) Region 2, (3) per pupil expenditure for elementary instruction, (4) amount of equalized assessment per pupil, (5) amount of supplementary requisition levied per pupil, (6) per pupil expenditure for operation and maintenance, (7) total operational revenue per pupil, (8) total operational expenditure per pupil, (9) Region 1, (10) Region 4, (11) per pupil expenditure for junior high instruction, (12) sparsity of pupil population and per pupil expenditure for administration.

Table 5.6 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in personal development at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in either Region 1, 2, or 4;

- b. lower the greater the degree of sparsity of pupil population;

2. Wealth

- a. higher if the amount of equalized assessment per pupil was high;

Table 5.6

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Personal Development at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Per pupil expenditure for senior high instruction	0.216	0.047	-0.216	-0.321
Region 2	0.290	0.084	0.128	0.349
Per pupil expenditure for elementary instruction	0.328	0.108	-0.134	-0.304
Amount of equalized assessment per pupil	0.376	0.142	0.074	0.334
Amount of supplementary requisition levied per pupil	0.399	0.159	-0.049	0.025
Per pupil expenditure for operation and maintenance	0.416	0.173	-0.020	0.159
Total operational revenue per pupil	0.434	0.188	-0.116	-1.301
Total operational expenditure per pupil	0.464	0.215	-0.079	1.261
Region 1	0.479	0.229	-0.015	0.213
Region 4	0.492	0.243	0.083	0.145
Per pupil expenditure for junior high instruction	0.503	0.253	-0.141	-0.150
Sparsity of pupil population	0.520	0.270	-0.047	-0.197
Per pupil expenditure for administration	0.530	0.281	-0.111	-0.138

F ratio = 1.034 Probability = 0.010

^a Only includes predictors where the R² change was at least 0.010.

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was high;

4. Revenue

- a. higher if the total operational revenue per pupil was low;

5. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for elementary instruction was low;
- c. higher if the per pupil expenditure for operation and maintenance was high;
- d. higher if the total operational expenditure per pupil was high;
- e. higher if the per pupil expenditure for junior high instruction was low, and;
- f. higher if the per pupil expenditure for administration was low.

Fine Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the instructional time provided in fine arts at the junior high level are shown in Table 5.7. Six variables entered the regression equation which had an overall F ratio of 7.062 significant at the 0.000 level. The multiple R for these variables was 0.575 and R^2 was 0.330. The first three variables selected accounted for 26.7 of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for transportation, (3) amount of equal-

Table 5.7

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Fine Arts at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.343	0.117	-0.343	-0.405
Per pupil expenditure for transportation	0.430	0.185	-0.033	-0.447
Amount of equalized assessment per pupil	0.516	0.267	0.285	0.291
Region 5	0.535	0.286	-0.079	-0.148
Ratio of SGR grants received to total operational revenue	0.553	0.306	-0.334	-0.221
Per pupil expenditure for senior high instruction	0.575	0.330	0.047	0.166

F ratio = 7.062 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

ized assessment per pupil, (4) Region 5, (5) ratio of SGR grants received to total operational revenue, and (6) per pupil expenditure for senior high instruction.

Table 5.7 shows that the above predictors were measured from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in fine arts at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in Region 5;

2. Wealth

- a. higher if the amount of equalized assessment per pupil was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low, and;
- b. higher if the per pupil expenditure for senior high instruction was high.

Second Languages. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in second languages at the junior high level are shown in Table 5.8. Nine variables entered the regression equation which had an overall F ratio of 6.443 significant at the 0.000 level.

Table 5.8

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Second Languages at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Region 2	0.379	0.144	-0.379	0.407
Per pupil expenditure for transportation	0.459	0.211	-0.263	-0.344
Amount of equalized assessment per pupil	0.508	0.259	-0.049	0.485
Region 3	0.540	0.292	0.129	0.140
Ratio of SGR grants received to total operational revenue	0.566	0.321	0.177	0.272
Jurisdiction type	0.605	0.367	-0.045	-0.440
Per pupil expenditures for operation and maintenance	0.622	0.387	-0.184	-0.185
Ratio of supplementary requisition levied to total operational revenue	0.633	0.400	-0.115	-0.240
Urban pupil ratio	0.641	0.411	0.228	0.185

F ratio = 6.443 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

The multiple R for these variables was 0.641 and R^2 was 0.411. The first three variables selected accounted for 25.9 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) Region 2, (2) per pupil expenditure for transportation, (3) amount of equalized assessment per pupil, (4) Region 3, (5) ratio of SGR grants received to total operational revenue, (6) jurisdiction type, (7) per pupil expenditure for operation and maintenance, (8) ratio of supplementary requisition levied to total operational revenue, and (9) urban pupil ratio.

Table 5.8 shows that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in second languages at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in either Region 2 or 3;
- b. higher if the jurisdiction was a public school district;
- c. higher if the urban pupil ratio was high;

2. Wealth

- a. higher if the amount of equalized assessment per pupil was high;

3. Fiscal effort

- a. higher if the ratio of the supplementary requisition levied to total operational revenue was low;

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was high;

5. Expenditure

- a. higher if the per pupil expenditure for transportation was low;
- b. higher if the per pupil expenditure for operation and maintenance was low.

Business Education. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in business education at the junior high level are shown in Table 5.9. Eight variables entered the regression equation which had an overall F ratio of 2.601 significant at the 0.014 level. The multiple R for these variables was 0.446 and R^2 was 0.199. The first two variables selected accounted for 11.2 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) per pupil expenditure for administration, (2) Region 4, (3) urban pupil ratio, (4) total SFPPF grants received per pupil, (5) Region 1, (6) school building utilization ratio, (7) unsupported debt mill rate, and (8) total operational expenditure per pupil.

Table 5.9 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in business education at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in Region 4;

Table 5.9

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Business Education at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Per pupil expenditure for administration	0.287	0.082	0.287	0.413
Region 4	0.335	0.112	0.148	0.094
Urban pupil ratio	0.356	0.127	-0.099	-0.236
Total SFPF grants received per pupil	0.385	0.148	-0.027	-0.181
Region 1	0.401	0.160	-0.055	-0.169
School building utilization ratio	0.410	0.168	-0.139	-0.224
Unsupported debt mill rate	0.433	0.187	0.061	0.225
Total operational expenditure per pupil	0.446	0.199	0.098	-0.166

F ratio = 2.601 Probability = 0.014

^a Only includes predictors where the R² change was at least 0.010.

- b. lower if the jurisdiction was located in Region 1;
- c. higher if the urban pupil ratio was low;
- d. higher if the school building utilization was low;

2. Wealth

- a. higher if the unsupported debt mill rate was high;

3. Revenue

- a. higher if the total SFPF grants received per pupil was low;

4. Expenditure

- a. higher if the per pupil expenditure for administration was high, and;
- b. higher if the total operational expenditure per pupil was low.

Home Economics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in home economics at the junior high level as shown in Table 5.10. Eleven variables entered the regression equation which had an overall F ratio of 5.555 significant at the 0.000 level. The multiple R for these variables was 0.657 and R^2 was 0.430. The first three variables selected accounted for 23.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for transportation, (3) ratio of SGR grants received to total operational revenue, (4) total operational expenditure per pupil, (5) amount of supplementary requisition levied per pupil, (6) Region 5, (7) per pupil expenditure for senior high instruction, (8) urban pupil ratio, (9) ratio of supplementary requisition levied to total operational revenue, (10) total operational revenue per pupil, and (11) total SGR grants received per pupil.

Table 5.10

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Home Economics at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.353	0.125	-0.353	-0.402
Per pupil expenditure for transportation	0.452	0.205	-0.048	-0.135
Ratio of SGR grants received to total operational revenue	0.485	0.236	-0.284	0.294
Total operational expenditure per pupil	0.521	0.271	0.037	0.296
Amount of supplementary requisition levied per pupil	0.554	0.307	0.079	-2.894
Region 5	0.578	0.334	-0.145	-1.173
Per pupil expenditure for senior high instruction	0.597	0.356	0.027	0.170
Urban pupil ratio	0.612	0.375	-0.003	0.442
Ratio of supplementary requisition levied to total operational revenue	0.627	0.393	0.170	1.661
Total operational revenue per pupil	0.637	0.406	0.017	1.483
Total SGR grants received per pupil	0.656	0.430	-0.222	-1.120

F ratio = 5.555 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Table 5.10 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in home economics at the junior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in Region 5;
- c. higher if the urban pupil ratio was high;

2. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;
- b. higher if the ratio of supplementary requisition levied to total operational revenue was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was high;
- b. higher if the total operational revenue per pupil was high;
- c. higher if the total SGR grants received per pupil was low;

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low;
- b. higher if the total operational expenditure per pupil was high, and;
- c. higher if the per pupil expenditure for senior high instruction was high.

Industrial Education (General). The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in industrial education (general) at the junior high level are shown in Table 5.11. Ten variables entered the regression equation which had an overall F ratio of 4.356 significant at the 0.000 level. The multiple R for these variables was 0.589 and R^2 was 0.347. The first two variables selected accounted for 21.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for transportation, (3) unsupported debt mill rate, (4) ratio of the supplementary requisition to total operational revenue, (5) amount of supplementary requisition levied per pupil, (6) per pupil expenditure for elementary instruction, (7) sparsity of pupil population, (8) per pupil expenditure for senior high instruction, (9) ratio of SGR grants received to total operational revenue, and (10) total operational revenue per pupil.

Table 5.11 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in industrial education (general) at the junior high level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. lower the greater the degree of sparsity of pupil population;
2. Wealth
 - a. higher if the unsupported debt mill rate was high;

Table 5.11

Proportion of Variance Predicted in the DPI for the
Total Instructional Time Provided in Industrial
Education (General) at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.407	0.166	-0.407	-0.382
Per pupil expenditure for transportation	0.462	0.214	0.035	0.134
Unsupported debt mill rate	0.484	0.234	0.104	0.149
Ratio of supplementary requisition levied to total operational revenue	0.501	0.251	0.242	1.470
Amount of supplementary requisition levied per pupil	0.519	0.270	0.140	-2.031
Per pupil expenditure for elementary instruction	0.534	0.286	0.182	0.172
Sparsity of pupil population	0.550	0.303	0.107	-0.272
Per pupil expenditure for senior high instruction	0.565	0.319	0.014	0.144
Ratio of SGR grants received to total operational revenue	0.575	0.331	-0.197	-0.284
Total operational revenue per pupil	0.589	0.347	0.078	0.505

F ratio = 4.356 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

3. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was high;
- b. higher if the amount of supplementary requisition levied per pupil was low;

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the total operational revenue per pupil was high;

5. Expenditure

- a. higher if the per pupil expenditure for transportation was high;
- b. higher if the per pupil expenditure for elementary instruction was high, and;
- c. higher if the per pupil expenditure for senior high instruction was high.

Other Subject Areas. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in other subject areas at the junior high level are shown in Table 5.12. Six variables entered the regression equation which had an overall F ratio of 3.357 significant at the 0.005 level. The multiple R for these variables was 0.437 and R^2 was 0.190. The first three variables selected accounted for 11.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) total SGR grants received per pupil, (2) net supplementary requisition mill rate, (3) ratio of supplementary requisi-

Table 5.12

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Other Subject Areas at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Total SGR grants received per pupil	0.223	0.050	0.223	0.286
Net supplementary requisition mill rate	0.283	0.080	0.150	0.234
Ratio of supplementary requisition levied to total operational revenue	0.336	0.113	-0.003	-0.352
Jurisdiction type	0.391	0.153	-0.207	-0.225
Region 1	0.412	0.170	-0.131	-0.177
Region 3	0.436	0.190	-0.136	-0.146

F ratio = 3.357 Probability = 0.005

^a Only includes predictors where the R² change was at least 0.010.

tion levied to total operational revenue, (4) jurisdiction type, (5) Region 1, and (6) Region 3.

Table 5.12 shows that the above predictors were measures from only two of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in other subject areas at the junior high level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. lower if the jurisdiction was located in either Region 1 or 3;
2. Fiscal effort
 - a. higher if the net supplementary requisition mill rate was higher, and;
 - b. higher if the ratio of supplementary requisition levied to total operational revenue was low.

Discussion of the Findings

In summary, the findings of this study related to the DPI for the total instructional time provided in each of the major subject areas at the junior high level varied significantly in terms of three dimensions outlined below:

1. In the total amount of variation that could be accounted for in terms of the set of predictor variables examined in the study.

The amount of variance that was explained in each DPI is summarized below:

 - a. 43.0 percent for home economics;
 - b. 41.3 percent for social studies;

- c. 41.1 percent for second languages;
 - d. 34.7 percent for industrial education (general);
 - e. 33.0 percent for fine arts;
 - f. 28.1 percent for personal development;
 - g. 21.2 percent for science;
 - h. 19.9 percent for business education;
 - i. 5.1 percent for language arts, and;
 - j. 3.5 percent for mathematics.
2. In the extent to which the most important predictor variable selected accounted for the variance found in each DPI. The findings noted were as follows:
- a. Jurisdiction type accounted for:
 - i. 16.6 percent of the variation found in industrial education (general);
 - ii. 12.5 percent of the variation found in home economics;
 - iii. 11.7 percent of the variation found in fine arts, and;
 - iv. only 3.5 percent of the variation found in mathematics.
 - b. The ratio of SGR grants received to total operational revenue accounted for 9.5 percent of the variation found in science.
 - c. The urban pupil ratio accounted for 15.8 percent of the variation found in social studies.
 - d. The per pupil expenditure for senior high instruction accounted for 4.7 percent of the variation found in personal development.
 - e. Location in Region 2 accounted for 14.4 percent of the variation found in second languages.

- f. The per pupil expenditure for administration accounted for 8.2 percent of the variation found in business education.
3. In the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five categories of predictor variables had on various DPI's. These are summarized below in terms of each major category:
- a. Demographic characteristics
- i. The DPI for each of mathematics, social studies, fine arts, second languages, home economics and industrial education (general) tended to be higher if the jurisdiction was a public school district.
 - ii. The DPI for each of social studies, second languages and home economics tended to be higher while that for business education tended to be lower if the urban pupil ratio was high.
 - iii. The DPI for each of personal development and industrial education (general) tended to be lower the greater the degree of sparsity of pupil population.
 - iv. The DPI for social studies tended to be higher while that for business education tended to be lower if the school building utilization ratio was high.
 - v. The DPI for personal development tended to be higher and that for business education tended to be lower in Region 1.
 - vi. The DPI for each of social studies, science, personal development and second languages tended to be higher in Region 2.

- vii. The DPI for social studies tended to be lower while that for second languages tended to be higher in Region 3.
- viii. The DPI for each of personal development and business education tended to be higher in Region 4.
- ix. The DPI for each of fine arts and home economics tended to be lower in Region 5.
- x. The DPI for social studies tended to be lower in Region 7.

b. Wealth

- i. The DPI for each of personal development, fine arts and second languages tended to be higher if the amount of equalized assessment per pupil was high.
- ii. The DPI for each of business education and industrial education (general) tended to be higher if the unsupported debt mill rate was high.

c. Fiscal effort

- i. The DPI for each of social studies, home economics and industrial education (general) tended to be higher while that for second languages tended to be lower if the ratio of supplementary requisition levied to total operational revenue was high.
- ii. The DPI for each of home economics and industrial education (general) tended to be higher while that for personal development tended to be lower if the amount of supplementary requisition levied per pupil was low.
- iii. The DPI for science tended to be lower if the net supplementary requisition mill rate was high.

d. Revenue

- i. The DPI for each of language arts, science, fine arts and industrial education (general) tended to be higher while that for each of second languages and home economics tended to be lower if the ratio of SGR grants received to total operational revenue was low.
- ii. The DPI for industrial education (general) tended to be higher while that for home economics tended to lower if the total SGR grants received per pupil was high.
- iii. The DPI for personal development tended to be higher while that for home economics tended to be lower if the total operational revenue per pupil was low.
- iv. The DPI for science tended to be higher if the ratio of SFPPF grants received to total operational revenue was high.
- v. The DPI for business education tended to be higher if the total SFPPF grants received per pupil was low.

e. Expenditure

- i. The DPI for each of social studies and personal development tended to be higher while that for each of fine arts, home economics and industrial education (general) tended to be lower if the per pupil expenditure for senior high instruction was low.
- ii. The DPI for each of science, fine arts, second languages and home economics tended to be higher while that for industrial education (general) tended to be lower if the per pupil expenditure for transportation was low.

- iii. The DPI for each of social studies and second languages tended to be higher while that for each of personal development and business education tended to be lower if the per pupil expenditure for operation and maintenance was low.
- iv. The DPI for each of science, personal development and home economics tended to be higher while that for business education tended to be lower if the total operational expenditure per pupil was high.
- v. The DPI for personal development tended to be higher while that for industrial education tended to be lower if the per pupil expenditure for elementary instruction was low.
- vi. The DPI for personal development tended to be higher if the per pupil expenditure for junior high instruction was low.
- vii. The DPI for personal development tended to be higher while that for business education tended to be lower if the per pupil expenditure for administration was low.

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT JUNIOR HIGH GRADE LEVELS

This section outlines the results of the data analysis and provided a discussion of the findings with respect to Sub-problem 2.3.

Statement of Sub-Problem 2.3

Sub-problem 2.3 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the junior high grades?

Findings

The nature and extent of variance of the DPI for the total instructional time provided in each of the junior high grades are shown in Table 5.13. The major findings noted were as follows:

1. The mean of the DPI for the total amount of instructional time provided in each of the junior high grades ranged from 49.6 credit-equivalent units at the grade seven level to 51.8 credit-equivalent units at the grade nine level.
2. The standard deviation of the index was 9.3 at the grade seven level and increased slightly to 10.7 at the grade nine level.

Discussion of Findings

To a large extent, there seemed to be little difference in the average amount and extent of variation in the DPI for the total instructional time provided at each junior high grade level. However, it should be noted that school jurisdictions generally provided about 32 percent more instruction at each of the junior high grade levels than at each of the elementary grade levels.

PREDICTORS OF VARIANCE OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT JUNIOR HIGH GRADE LEVELS

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 2.4.

Table 5.13

Extent of Variation in DPI's For Individual
Grades at the Junior High Level

Grade	Percentage of Total Program	DPI	
		Mean	Standard Deviation
7	32.65	49.56	9.34
8	33.25	50.47	9.47
9	34.10	51.76	10.66
Total Program	100.00	151.79	27.02

Statement of Sub-Problem 2.4

Sub-problem 2.4 was stated as follows: To what extent to certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the junior high grades?

Findings

Grade Seven. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade seven level are shown in Table 5.14. Eight variables entered the regression equation which had an overall F ratio of 5.201 significant at the 0.000 level. The multiple R for these variables was 0.576 and R^2 was 0.331. The first three variables selected accounted for 22.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) per pupil expenditure for transportation; (3) jurisdiction type, (4) Region 2, (5) sparsity of pupil population, (6) per pupil expenditure for senior high instruction, (7) total operational revenue per pupil, and (8) per pupil expenditure for elementary instruction.

Table 5.14 indicates that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade seven level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the jurisdiction was located in Region 2;

Table 5.14

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Seven Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.297	0.088	-0.297	-0.390
Per pupil expenditure for transportation	0.402	0.161	-0.168	-0.622
Jurisdiction type	0.478	0.228	-0.215	-0.306
Region 2	0.517	0.267	0.175	0.258
Sparsity of pupil population	0.544	0.295	-0.103	-0.147
Per pupil expenditure for senior high instruction	0.551	0.304	-0.159	-0.170
Total operational revenue per pupil	0.562	0.316	-0.116	0.394
Per pupil expenditure for elementary instruction	0.576	0.331	-0.020	-0.171

F ratio = 5.201 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

c. lower the greater the degree of sparsity of pupil population;

2. Revenue

a. higher if the ratio of SGR grants received to total operational revenue was low;

b. higher if the total operational revenue per pupil was high;

3. Expenditure

a. higher if the per pupil expenditure for transportation was low;

b. higher if the per pupil expenditure for senior high instruction was low, and;

c. higher if the per pupil expenditure for elementary instruction was low.

Grade Eight. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade eight level are shown in Table 5.15. Seven variables entered the regression equation which had an overall F ratio of 5.953 significant at the 0.000 level. The multiple R for these variables was 0.574 and R^2 was 0.329. The first three variables selected accounted for 23.2 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) per pupil expenditure for transportation, (3) jurisdiction type, (4) Region 2, (5) amount of equalized assessment per pupil, (6) ratio of supplementary requisition levied to total operational revenue and (7) total operational expenditure per pupil.

Table 5.15 shows that the above predictors were measures from all five of the broad categories of predictor variables examined in the

Table 5.15

Proportion of Variance Predicted in the DPI Encompassing
All Subject Areas at the Grade Eight Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.307	0.095	-0.307	-0.371
Per pupil expenditure for transportation	0.380	0.145	-0.121	-0.662
Jurisdiction type	0.482	0.232	-0.269	-0.383
Region 2	0.517	0.267	0.165	0.207
Amount of equalized assessment per pupil	0.544	0.296	0.169	0.397
Ratio of supplementary requisition levied to total operational revenue	0.564	0.318	0.156	-0.354
Total operational expenditure per pupil	0.574	0.329	-0.068	0.211

F ratio = 5.953 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade eight level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the jurisdiction was located in Region 2;
2. Wealth
 - a. higher if the amount of equalized assessment per pupil was high;
3. Fiscal effort
 - a. higher if the ratio of supplementary requisition levied to total operational revenue was low;
4. Revenue
 - a. higher if the ratio of SGR grants received to total operational revenue was low;
5. Expenditure
 - a. higher if the per pupil expenditure for transportation was low, and;
 - b. higher if the total operational expenditure per pupil was high.

Grade Nine. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade nine level are shown in Table 5.16. The variables entered the regression equation which had an overall F ratio of 5.713 significant at the 0.000 level. The multiple R for these variables was 0.040 and R^2 was 0.411. The first three variables selected accounted for 28.3 percent of the variance noted. The pre-

Table 5.16

Proportion of Variance Predicted in the DPI Encompassing
All Subject Areas at the Grade Nine Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.345	0.119	-0.345	-0.355
Per pupil expenditure for transportation	0.426	0.182	-0.135	-0.322
Jurisdiction type	0.532	0.283	-0.292	-0.321
Region 2	0.565	0.319	0.165	0.248
Amount of equalized assessment per pupil	0.597	0.356	0.193	0.368
Region 6	0.605	0.367	0.133	0.089
Amount of supplementary requisition levied per pupil	0.613	0.376	0.090	-1.253
Total operational expenditure per pupil	0.624	0.390	-0.084	0.446
Ratio of supplementary requisition levied to total operational revenue	0.632	0.400	0.226	0.729
Urban pupil ratio	0.640	0.411	0.055	0.214

F ratio = 5.713

Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

dictor variables in order to relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) per pupil expenditure for transportation, (3) jurisdiction type, (4) Region 2, (5) amount of equalized assessment per pupil, (6) Region 6, (7) amount of supplementary requisition levied per pupil, (8) total operational expenditure per pupil, (9) ratio of supplementary requisition levied to total operational revenue, and (10) urban pupil ratio.

Table 5.16 shows that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade nine level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the jurisdiction was located in either Region 2 or 6;
- c. higher if the urban pupil ratio was high;

2. Wealth

- a. higher if the amount of equalized assessment was high;

3. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was high;

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

5. Expenditure

- a. higher if the per pupil expenditure for transportation was low, and;
- b. higher if the total operational expenditure per pupil was high.

Discussion of Findings

The regression results for variation found in the DPI for the total instructional time provided at each junior high grade level indicated that:

1. The most important single predictor of variance at each junior high grade level was the ratio of SGR grants received to total operational revenue.
2. The following four predictor variables entered each of the three regression equations:
 - a. the ratio of SGR grants received to total operational revenue;
 - b. Region 2;
 - c. jurisdiction type;
 - d. per pupil expenditure for transportation.
3. The following two predictors were found to be important at only the grade eight and nine levels:
 - a. amount of equalized assessment per pupil;
 - b. total operational expenditure per pupil.
4. In each instance where the predictor variables listed above (in #2 and #3) entered a regression equation and the effects of other predictors were held constant, the DPI tended to be higher if the following was evident:

- a. the ratio of SGR grants received to total operational revenue was low;
- b. the jurisdiction was located in Region 2;
- c. the jurisdiction was a public school district;
- d. the per pupil expenditure for transportation was low;
- e. the amount of equalized assessment per pupil was high, and;
- f. the total operational expenditure per pupil was high.

VARIATION OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT THE JUNIOR HIGH LEVEL

This section presents the results of the data analysis and provides a discussion of findings with regard to Sub-problem 2.5.

Statement of Sub-Problem 2.5

Sub-problem 2.5 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided at the junior high level?

Findings

As indicated previously in Table 5.13, the DPI for the total instructional time provided at the junior high level had a mean of 151.8 credit-equivalent units and a standard deviation of 27.0.

Discussion of the Findings

The standard deviation of the DPI for the total instructional time provided at the junior high level was approximately three times as great as the standard deviation of the index for each junior high grade. This would suggest that there was as much variation among jurisdictions in

the overall junior high DPI as there was at each of the junior high grade levels.

PREDICTORS OF VARIANCE OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT THE JUNIOR HIGH LEVEL

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 2.6.

Statement of Sub-Problem 2.6

Sub-problem 2.6 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the junior high level?

Findings

The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the junior high level are shown in Table 5.17. Six variables entered the regression equation which had an overall F ratio of 8.814 significant at the 0.000 level. The multiple R for these variables was 0.617 and R^2 was 0.381. The first three variables selected accounted for 29.5 percent of the variance noted. The predictor variables noted in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) per pupil expenditure for transportation, (3) jurisdiction type, (4) Region 2, (5) amount of equalized assessment per pupil, and (5) ratio of supplementary requisition levied to total operational revenue.

Table 5.17

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Junior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.347	0.120	-0.347	-0.309
Per pupil expenditure for transportation	0.440	0.193	-0.154	-0.586
Jurisdiction type	0.543	0.295	-0.284	-0.399
Region 2	0.582	0.338	0.184	0.242
Amount of equalized assessment per pupil	0.607	0.369	0.169	0.395
Ratio of supplementary requisition levied to total operational revenue	0.617	0.381	0.187	-0.217

F ratio = 8.814 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Table 5.17 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the junior high level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the jurisdiction was located in Region 2;
2. Wealth
 - a. higher if the amount of equalized assessment was high;
3. Fiscal effort
 - a. higher if the ratio of supplementary requisition levied to total operational revenue was low;
4. Revenue
 - a. higher if the ratio of SGR grants received to total operational revenue was low, and;
5. Expenditure
 - a. higher if the per pupil expenditure for transportation was low.

Discussion of the Findings

The findings of the study seem to indicate that public school districts characterized by low ratios of SGR grants received to total operational revenue, and lower per pupil expenditures for transportation, were able to provide more extensive curricular program offerings at the junior high level. Generally, districts with a low equalized assessment per pupil received a large proportion of SGR grants mainly

due to eligibility for supplementary requisition equalization grant entitlements. The results of this study suggest that although a fiscal equalization program was in effect, districts with low equalized assessments per pupil still remained somewhat disadvantaged.

SUMMARY OF CHAPTER 5

The findings of this study indicate that the total instructional time provided in major subject areas at each of the junior high grade levels varied substantially among Alberta school jurisdictions. In terms of the set of predictor variables examined in the study, approximately 33 percent of the variation found could be accounted for at each of the grade seven and eight levels while approximately 41 percent could be accounted for at the grade nine level. The results of the study show that the overall DPI for each of the junior high grades tended to be higher for public school districts which had (1) a low ratio of SGR grants received to total operational revenue, and (2) a low per pupil expenditure for transportation.

The findings of the study also indicate that the DPI's representative of the total instructional time provided in each of the major areas at the junior high level varied along four major dimensions. First, in the total amount of instructional time which generally was provided in each of the major subject areas. It was noted that the greatest proportion of the junior high program was devoted to the study of language arts (21.3 percent) while the least was devoted to the study of business education (1.2 percent). Second, in the amount of variation found in the DPI for each of the major subject areas which could be accounted for in terms of the set of predictor variables examined in the study. The

amount of explained variation for each of the DPI's ranged from 7.1 percent for mathematics to 43.0 percent for home economics. Third, in the nature of the predictor which was found to account for the greatest proportion of variance found in each of the DPI's. Jurisdiction type was found to be the most important single predictor of variance accounted for in the DPI for each of industrial education (general), home economics, fine arts, and mathematics. Fourth, in the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five broad categories of predictor variables had on various subject area DPI's. A total of 26 of the 32 predictor variables examined in the study entered one or more of the regression equations.

In summary, the findings of the study seem to indicate that public school districts characterized by low ratios of SGR grants received to total operational revenue, and low per pupil expenditures for transportation, were able to provide more extensive curricular program offerings at the junior high level. Generally, districts with a low equalized assessment per pupil received a large portion of SGR grants mainly due to eligibility for supplementary requisition grant entitlements. The results of this study suggest that although a fiscal equalization program is in effect, districts with low equalized assessments per pupil remain somewhat disadvantaged.

Chapter 6

ANALYSIS AND FINDINGS AT THE SENIOR HIGH LEVEL

This chapter presents the results of the data analysis and provides a discussion of the findings with respect to Sub-problems 3.1 through 3.6 of Problem 1. Problem 1 was stated as follows: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the senior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS AT THE SENIOR HIGH LEVEL

This section reports the results of the data analysis and provides a discussion of findings with regard to Sub-problem 3.1.

Statement of Sub-Problem 3.1

Sub-problem 3.1 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas at the senior high level?

Findings

The mean and standard deviation of the DPI for the total instructional time provided in each of the major subject areas at the senior high level are reported in Table 6.1. The major findings were noted as follows:

Table 6.1

Extent of Variation in DPI's for the Total Instructional Time
Provided in Major Subject Areas at the Senior High Level

Major Subject Areas	Percentage of Total Program	DPI	
		Mean	Standard Deviation
Language Arts	10.47	24.77	14.56
Mathematics	11.45	27.09	16.78
Social Studies	8.80	20.81	12.71
Science	11.11	26.28	15.39
Personal Development	4.44	10.51	6.79
Fine Arts	7.49	17.71	18.95
Second Languages	5.56	13.16	11.57
Business Education	13.96	33.03	22.95
Home Economics	4.95	11.72	12.03
Industrial Education (General)	3.58	8.47	8.85
Industrial Education (Vocational)	11.48	27.16	66.53
Other Subject Areas	6.68	15.81	11.35
Total Program	100.00	236.53	175.56

1. Generally, the greatest proportion of the instructional program at the senior high level was devoted to business education (14.0 per cent), followed by industrial education (vocational - 11.5 per cent), mathematics (11.4 percent), science (11.1 percent), language arts (10.5 percent), social studies (8.8 percent), fine arts (7.5 percent), second languages (5.6 percent), home economics (5.0 per cent), personal development (4.4 percent), industrial education (general - 3.6 percent) and other subjects (6.7 percent).
2. In each of language arts, mathematics, social studies, science, personal development and business education, the standard deviation of the DPI ranged from about one-half to two-thirds of the value of the mean. In each of remaining subject areas, the standard deviation of the DPI was almost equal to or greater than the value of the mean, thus indicating a highly skewed distribution.

Discussion of the Findings

In summary, there was much greater variation in the extent of instructional program offering at the senior high level than previously noted at the elementary or junior high levels. As might be expected, the scope and depth of the overall provincial program of studies is considerably more extensive at the senior high level allowing for greater differentiation and specialization in student programming and vocational preparation.

PREDICTORS OF VARIANCE OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS AT THE SENIOR HIGH LEVEL

This section outlines the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 3.2.

Statement of Sub-Problem 3.2

Sub-problem 3.2 was stated as follows: To what extent do certain measures of demographic wealth, fiscal effort, revenue and expenditure variables amount for the variance of the DPI for the total instructional time provided in each of the major subject areas at senior high level?

Findings

Language Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in language arts at the senior high level are shown in Table 6.2. Seven variables entered the regression equation which had an overall F ratio of 20.614 significant at the 0.000 level. The multiple R for these variables was 0.793 and R^2 was 0.629. The first two variables selected accounted for 48.5 percent of the variance noted. The predictor variables in order of relative importance were as

Table 6.2

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Language Arts at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.557	0.311	-0.557	-0.348
Per pupil expenditure for senior high instruction	0.697	0.485	-0.517	-0.496
School building utilization ratio	0.723	0.523	0.064	0.286
Total SFPF grants received per pupil	0.754	0.569	0.317	0.284
Net supplementary requisition mill rate	0.775	0.601	0.115	0.182
Senior high enrolment	0.786	0.618	0.216	0.121
Region 1	0.793	0.629	-0.206	-0.113

F ratio = 20.614 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) school building utilization ratio, (4) total SFPF grants received per pupil, (5) net supplementary requisition mill rate (6) senior high enrolment, and (7) Region 1.

Table 6.2 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in language arts at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the senior high enrolment was high;
- d. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the net supplementary requisition was high;

3. Revenue

- a. higher if the total SFPF grants received per pupil was high;
and,

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low.

Mathematics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in mathematics at the senior high level as shown in Table 6.3. Ten variables entered the regression equation which had an overall F ratio of 12.754 significant at the 0.000 level. The multiple

Table 6.3

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Mathematics at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.536	0.287	-0.536	-0.253
Per pupil expenditure for senior high instruction	0.626	0.391	-0.420	-0.423
Ratio of SGR grants received to total operational revenue	0.668	0.447	-0.497	-0.119
School building utilization ratio	0.688	0.474	0.032	0.208
Total SFPF grants received per pupil	0.706	0.398	0.331	0.392
Per pupil expenditure for transportation	0.735	0.539	0.113	-0.264
Net supplementary requisition mill rate	0.750	0.563	0.155	0.158
Region 1	0.760	0.577	-0.277	-0.166
Per pupil expenditure for operation and maintenance	0.770	0.593	0.130	0.192
Per pupil expenditure for administration	0.780	0.609	-0.334	-0.151

F ratio = 12.754 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

R for these variables was 0.780 and R^2 was 0.609. The first three variables selected accounted for 47.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) ratio of SGR grants received to total operational revenue, (4) school building utilization ratio, (5) total SFPP grants received per pupil, (6) per pupil expenditure for transportation, (7) net supplementary requisition mill rate, (8) Region 1, (9) per pupil expenditure for operation and maintenance and per pupil expenditure for administration.

Table 6.3 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in mathematics at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the net supplementary requisition was high;

3. Revenue

- a. higher if the SGR grants received to total operational revenue was low;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;

- b. higher if the per pupil expenditure for transportation was low;
- c. higher if the per pupil expenditure for operation and maintenance was high; and,
- d. higher if the per pupil expenditure for administration was low.

Social Studies. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in social studies at the senior high level are shown in Table 6.4. Ten variables entered the regression equation which had an overall F ratio of 16.362 significant at the 0.000 level. The multiple R for these variables was 0.816 and R^2 was 0.666. The first three variables selected accounted for 45.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) net supplementay requisition millrate, (4) total SFPF grants received per pupil, (5) school building utilization ratio, (6) senior high enrolment, (7) Region 1, (8) per pupil expenditure for operation and maintenance, (9) ratio of SFPF grants received to total operational revenue, and (10) Region 5.

Table 6.4 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in social studies at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;

Table 6.4

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Social Studies at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.543	0.295	-0.543	-0.183
Per pupil expenditure for senior high instruction	0.638	0.407	-0.432	-0.462
Net supplementary requisition mill rate	0.673	0.453	0.186	0.246
Total SFPF grants received per pupil	0.710	0.504	0.374	0.242
School building utilization ratio	0.746	0.557	0.018	0.240
Senior high enrolment	0.773	0.597	0.283	0.167
Region 1	0.791	0.626	-0.277	-0.242
Per pupil expenditure for operation and maintenance	0.799	0.638	0.197	0.299
Ratio of SFPF grants received to total operational revenue	0.810	0.655	0.265	0.202
Region 5	0.816	0.666	-0.001	-0.111

F ratio = 16.362 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- b. higher if the school building utilization ratio was high;
 - c. higher if the senior high enrolment was high;
 - d. lower if the jurisdiction was located in either Region 1 or 5;
2. Fiscal effort
- a. higher if the net supplementary requisition mill rate was high;
3. Revenue
- a. higher if the total SFPF grants received per pupil was high;
 - b. higher if the total SFPF grants received to total operational revenue was high;
4. Expenditure
- a. higher if the per pupil expenditure for senior high instruction was low; and,
 - b. higher if the per pupil expenditure for operation and maintenance was high.

Sciences. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in science at the senior high level are shown in Table 6.5. Seven variables entered the regression equation which has an overall F ratio of 29.031 significant at the 0.000 level. The multiple R for these variables was 0.840 and R^2 was 0.705. The first two variables selected accounted for 51.2 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) total SFPF grants received per pupil, (4) school building utilization ratio, (5) net supplementary requisition millrate, (6) Region 1, and (7) senior high enrolment.

Table 6.5

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Science at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.577	0.333	-0.577	-0.291
Per pupil expenditure for senior high instruction	0.716	0.521	-0.526	-0.523
Total SFPF grants received per pupil	0.758	0.575	0.428	0.393
School building utilization ratio	0.789	0.622	-0.014	0.245
Net supplementary requisition mill rate	0.812	0.659	0.113	0.198
Region 1	0.833	0.694	-0.287	-0.188
Senior high enrolment	0.840	0.705	0.202	0.106

F ratio = 29.031 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Table 6.5 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in science at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. lower if the jurisdiction was located in Region 1;
- d. higher if the senior high enrolment was high;

2. Fiscal effort

- a. higher if the net supplementary requisition mill rate was high;

3. Revenue

- a. higher if the total SFPF grants received per pupil was high; and,

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low.

Personal Development. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in personal development at the senior high level are shown in Table 6.6. Ten variables entered the regression equation which had an overall F ratio of 10.049 significant at the 0.000 level. The multiple R for these variables was 0.742 and R^2 was 0.551. The first two predictors selected accounted for 39.6 percent of the variance noted. The predictor variables in order of relative importance

Table 6.6

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Personal Development at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.585	0.343	-0.585	-0.416
Per pupil expenditure for senior high instruction	0.629	0.396	-0.339	-0.257
Net supplementary requisition mill rate	0.651	0.424	0.149	0.154
Total SFPF grants received per pupil	0.668	0.447	0.340	0.197
School building utilization ratio	0.692	0.478	-0.007	0.198
Senior high enrolment	0.702	0.492	0.208	2.143
Sparsity of pupil population	0.709	0.502	0.408	0.339
Junior high enrolment	0.723	0.523	0.202	-2.045
Urban pupil ratio	0.735	0.540	-0.328	0.270
Region 1	0.742	0.551	-0.208	-0.111

F ratio = 10.049 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) net supplementary requisition mill rate, (4) total SFPP grants received per pupil, (5) school building utilization ratio, (6) senior high enrolment, (7) sparsity of pupil population, (8) junior high enrolment, (9) urban pupil ratio, and (10) Region 1.

Table 6.6 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in personal development at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the senior high enrolment was high;
- d. higher if the jurisdiction was sparsely populated;
- e. higher if the junior high enrolment was low;
- f. higher if the urban pupil ratio was high;
- g. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the net supplementary requisition mill rate was high;

3. Revenue

- a. higher if the SFPP grants received per pupil was high; and,

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low.

Fine Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in fine arts at the senior high level are shown in Table 6.7. Six variables entered the regression equation which had an overall F ratio of 10.784 significant at the 0.000 level. The multiple R for these variables was 0.655 and R^2 was 0.429. The first three variables selected accounted for 37.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) senior high enrolment, (2) jurisdiction type, (3) per pupil expenditure for transportation, (4) ratio of SGR grants received to total operational revenue, (5) Region 6, and (7) total SFPF grants received per pupil.

Table 6.7 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in fine arts at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the senior high enrolment was high;
- b. higher if the jurisdiction was a public school district;
- c. higher if the jurisdiction was located in Region 6;

2. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the SFPF grants received per pupil was high; and,

Table 6.7

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Fine Arts at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Senior high enrolment	0.450	0.202	0.450	0.334
Jurisdiction type	0.560	0.313	-0.397	-0.439
Per pupil expenditure for transportation	0.613	0.376	-0.062	-0.413
Ratio of SGR grants received to total operational revenue	0.635	0.403	-0.316	-0.135
Region 6	0.647	0.418	0.160	0.113
Total SFPF grants received per pupil	0.655	0.429	0.123	0.150

F ratio = 10.784 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

3. Expenditure

- a. higher if the per pupil expenditure for transportation was low.

Second Languages. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in second languages at the senior high level are shown in Table 6.8. Nine variables entered the regression equation which had an overall F ratio of 6.812 significant at the 0.000 level. The multiple R for these variables was 0.651 and R^2 was 0.425. The first four variables selected accounted for 34.5 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) senior high enrolment, (2) jurisdiction type, (3) ratio of SFPPF grants received to total operational revenue, (4) urban pupil ratio, (5) net supplementary requisition mill rate, (6) Region 3, (7) junior high enrolment, (8) school building utilization ratio, and (9) per pupil expenditure for elementary instruction.

Table 6.8 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in second languages at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the senior high enrolment was high;
- b. higher if the jurisdiction was a public school district;
- c. higher if the urban pupil ratio was high;
- d. higher if the jurisdiction was located in Region 3;
- e. higher if the junior high enrolment was low;

Table 6.8

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Second Languages at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Senior high enrolment	0.422	0.178	0.422	2.869
Jurisdiction type	0.513	0.263	-0.352	-0.344
Ratio of SFPF grants received to total operational revenue	0.563	0.317	0.229	0.253
Urban pupil ratio	0.587	0.345	-0.045	0.063
Net supplementary requisition mill rate	0.603	0.364	0.172	0.127
Region 3	0.618	0.382	0.160	0.172
Junior high enrolment	0.633	0.401	0.408	-2.519
School building utilization ratio	0.643	0.414	0.045	0.156
Per pupil expenditure for elementary instruction	0.651	0.425	0.092	0.120

F ratio = 6.812 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- f. higher if the school building utilization ratio was high;
- 2. Fiscal effort
 - a. higher if the net supplementary requisition mill rate was high;
- 3. Revenue
 - a. higher if the ratio of SFPF grants received to total operational revenue was high; and,
- 4. Expenditure
 - a. higher if the per pupil expenditure for elementary instruction was high.

Business Education. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in business education at the senior high level are shown in Table 6.9. Eleven variables entered the regression equation which had an overall F ratio of 11.191 significant at the 0.000 level. The multiple R for these variables was 0.777 and R^2 was 0.603. The first three variables selected accounted for 44.5 percent of the variance noted. The predictor variables in order of relative importance were as follows; (1) jurisdiction type, (2) senior high enrolment, (3) ratio of SGR grants received to total operational revenue, (4) net supplementary requisition mill rate, (5) per pupil expenditure for senior high instruction, (6) school building utilization ratio, (7) per pupil expenditure for junior high instruction, (8) ratio of SFPF grants received to total operational revenue, (9) total SGR grants received per pupil, (10) urban pupil ratio, and (11) per pupil expenditure for administration.

Table 6.9

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Business Education at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.549	0.301	-0.549	-0.414
Senior high enrolment	0.617	0.381	0.362	1.942
Ratio of SGR grants received to total operational revenue	0.667	0.445	-0.478	-0.890
Net supplementary requisition mill rate	0.689	0.474	0.212	0.145
Per pupil expenditure for senior high instruction	0.711	0.505	-0.308	-0.191
School building utilization ratio	0.724	0.524	0.018	0.735
Per pupil expenditure for junior high instruction	0.739	0.546	0.351	-1.135
Ratio of SFPF grants received to total operational revenue	0.748	0.559	0.232	0.223
Total SGR grants received per pupil	0.761	0.579	-0.390	0.775
Urban pupil ratio	0.769	0.591	-0.352	0.182
Per pupil expenditure for administration	0.777	0.603	-0.352	-0.134

F ratio = 11.191 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

Table 6.9 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in business education at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the school building utilization ratio was high;
- d. higher if the urban pupil ratio was high;

2. Fiscal effort

- a. higher if the net supplementary requisition mill rate was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the ratio of SFPP grants received to total operational revenue was high;
- c. higher if the SGR grants received per pupil was high;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for junior high instruction was low; and,
- c. higher if the per pupil expenditure for administration was low.

Home Economics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in home economics at the senior high level are shown in Table 6.10. Nine variables entered the regression equation which had an overall F ratio of 0.669 significant at the 0.000 level. The multiple R for these variables was 0.669 and R^2 was 0.448. The first two variables selected accounted for 31.1 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) per pupil expenditure for administration, (4) Region 6, (5) school building utilization ratio, (6) elementary enrolment, (7) Region 3, (8) sparsity of pupil population, and (9) urban pupil ratio.

Table 6.10 indicates that the above predictors were measures from only two of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in home economics at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the jurisdiction was located in either Region 3 or 6;
- d. higher if the school building utilization ratio was high;
- e. higher if the elementary enrolment was low;
- f. higher if the jurisdiction was sparsely populated;
- g. higher if the urban pupil ratio was high; and,

Table 6.10

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Home Economics at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.436	0.190	-0.436	-0.416
Senior high enrolment	0.558	0.311	0.410	1.457
Per pupil expenditure for administration	0.579	0.335	-0.323	-0.122
Region 6	0.600	0.360	0.154	0.171
School building utilization ratio	0.613	0.375	0.153	0.119
Elementary enrolment	0.625	0.390	0.397	-1.155
Region 3	0.634	0.402	0.061	0.108
Sparsity of pupil population	0.642	0.413	0.229	0.368
Urban pupil ratio	0.669	0.448	-0.094	0.379

F ratio = 7.476 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

2. Expenditure

- a. higher if the per pupil expenditure for administration was low.

Industrial Education (General). The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in industrial education (general) at the senior high level are shown in Table 6.11. Seven variables entered the regression equation which had an overall F ratio of 7.140 significant at the 0.000 level. The multiple R for these variables was 0.609 and R^2 was 0.370. The first variable selected accounted for 24.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) ratio of SGR grants received to total operational revenue, (3) Region 5, (4) Region 4, (5) sparsity of pupil population, (6) urban pupil ratio, and (7) unsupported debt mill rate.

From Table 6.11, it was shown that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. The relationship between each predictor within each of these categories and the criterion variable when the values of the other predictors were held constant is summarized below. That is to say, the DPI for the total instructional time provided in industrial education (general) at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in either Region 3 or 5;
- c. higher if the jurisdiction was sparsely populated;

Table 6.11

Proportion of Variance Predicted in the DPI for the
Total Instructional Time Provided in Industrial
Education (General) at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.496	0.246	-0.496	-0.448
Ratio of SGR grants received to total operational revenue	0.518	0.269	-0.347	-0.237
Region 5	0.542	0.294	-0.076	-0.181
Region 4	0.567	0.321	-0.086	-0.136
Sparsity of pupil population	0.579	0.335	0.360	0.352
Urban pupil population	0.599	0.359	-0.267	0.316
Unsupported debt mill rate	0.609	0.370	-0.014	0.119

F ratio = 7.140 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

d. higher if the urban pupil ratio was high;

2. Wealth

a. higher if the unsupported debt mill rate was high; and,

3. Revenue

a. higher if the ratio of SGR grants received to total operational revenue was low.

Industrial Education (Vocational). The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in industrial education (vocational) at the senior high level are shown in Table 6.12. Eight variables entered the regression equation which had an overall F ratio of 9.188 significant at the 0.000 level. The multiple R for these variables was 0.683 and R^2 was 0.467. The first four variables selected accounted for 38.5 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) senior high enrolment, (2) junior high enrolment, (3) jurisdiction type, (4) per pupil expenditure for transportation, (5) elementary enrolment, (6) Region 4, and (7) amount of equalized assessment per pupil.

Table 6.12 indicates that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in industrial education (vocational) at the senior high level tended to be as follows:

1. Demographic characteristics

a. higher if the senior high enrolment was high;

b. higher if the junior high enrolment was low;

Table 6.12

Proportion of Variance Predicted in the DPI for the
Total Instructional Time Provided in Industrial
Education (Vocational) at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Senior high enrolment	0.441	0.195	0.441	4.870
Junior high enrolment	0.529	0.279	0.417	-7.939
Jurisdiction type	0.567	0.321	-0.239	-0.329
Per pupil expenditure for transportation	0.620	0.385	-0.183	-0.356
Elementary enrolment	0.664	0.440	0.172	0.159
Region 4	0.674	0.454	0.206	0.176
Amount of equalized assessment per pupil	0.683	0.467	0.201	0.115

F ratio = 9.188 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- c. higher if the jurisdiction was a public school district;
- d. higher if the elementary enrolment was high;

2. Wealth

- a. higher if the amount of equalized assessment per pupil was high; and,

3. Expenditure

- a. higher if the per pupil expenditure for transportation was low.

Other Subject Areas. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in other subject areas at the senior high level are shown in Table 6.13. Eleven variables entered the regression equation which had an overall F ratio of 4.476 significant at the 0.000 level. The multiple R for these variables was 0.615 and R^2 was 0.378. The first three variables selected accounted for 20.1 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SFPF grants received to total operational revenue, (2) jurisdiction type, (3) per pupil expenditure for senior high instruction, (4) school building utilization ratio, (5) Region 7, (6) Region 6, (7) ratio of supplementary requisition levied to total operational revenue, (8) total SFPF grants received per pupil, (9) per pupil expenditure for transportation, (10) ratio of SGR grants received to total operational revenue, and (11) total operation revenue per pupil.

Table 6.13 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held

Table 6.13

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Other Subject Areas at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SFPF grants received to total operational revenue	0.310	0.096	0.310	0.258
Jurisdiction type	0.410	0.168	-0.283	-0.340
Per pupil expenditure for senior high instruction	0.448	0.201	-0.287	-0.181
School building utilization ratio	0.480	0.230	0.097	0.179
Region 7	0.501	0.251	0.131	0.183
Region 6	0.514	0.264	0.126	0.107
Ratio of the supplementary requisition levied to total operational revenue	0.526	0.277	0.063	-0.477
Total SFPF grants received per pupil	0.545	0.297	0.212	0.226
Per pupil expenditure for transportation	0.569	0.324	-0.002	-0.519
Ratio of SGR grants received to total operational revenue	0.588	0.345	-0.301	-0.354
Total operational revenue per pupil	0.615	0.378	-0.061	0.498

F ratio = 4.476 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

constant, the DPI for the total instructional time provided in other subject areas at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the jurisdiction was located in either Region 6 or 7;

2. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was low;

3. Revenue

- a. higher if the ratio of SFPPF grants received to total operational revenue was high;
- b. higher if the ratio of SGR grants received to total operational revenue was low;
- c. higher if the total SGPF grants received per pupil was high;
- d. higher if the total operational revenue per pupil was high;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low; and,
- b. higher if the per pupil expenditure for transportation was low.

Discussion of the Findings

In summary, the findings of the study related to the DPI for the total instructional time provided in each of the major subject areas at the senior high level varied significantly in terms of the total amount

of variation that was accounted for by the set of predictor variables examined in the study. The total amount of variation accounted for in each DPI was as follows:

1. 70.5 percent for science;
2. 66.6 percent for social studies;
3. 62.9 percent for language arts;
4. 60.9 percent for mathematics;
5. 60.3 percent for business education;
6. 55.1 percent for personal development;
7. 46.7 percent for industrial education (vocational);
8. 44.8 percent for home economics;
9. 42.9 percent for fine arts;
10. 42.5 percent for second languages, and
11. 37.0 percent for industrial education (general).

On the other hand, there was a considerable degree of consistency found in the regression results obtained for each of the DPI's with respect to the following two dimensions:

1. In the number of instances and the extent to which the same predictor variable was found to have the most predictive value in relation to various DPI's. The following was noted:

a. Jurisdiction type accounted for

- i. 34.3 percent of the variation found in personal development;
- ii. 33.3 percent of the variation found in science;
- iii. 31.1 percent of the variation found in language arts;
- iv. 30.1 percent of the variation found in business education;

- v. 29.5 percent of the variation found in social studies;
- vi. 28.7 percent of the variation found in mathematics;
- vii. 24.6 percent of the variation found in industrial education (general); and,
- viii. 19.0 percent of the variation found in home economics.

b. Senior high enrolment accounted for

- i. 20.2 percent of the variation found in fine arts;
- ii. 19.5 percent of the variation found in industrial education (vocational); and,
- iii. 17.8 percent of the variation found in second languages.

2. In the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five categories of predictor variables had on various DPI's. These are summarized below in terms of each major category:

a. Demographic characteristics

- i. The DPI for each of the major subject areas at the senior high level tended to be higher if the jurisdiction was a public school district.
- ii. Except for mathematics and industrial education (general), the DPI for each of the remaining nine major subject areas tended to be higher if the senior high enrolment was high.
- iii. Except for fine arts and industrial education (general), the DPI for each of the remaining nine major subject areas tended to be higher if the school building utilization ratio was high.

- iv. The DPI for each of personal development, second languages, business education, home economics and industrial education (general) tended to be higher if the urban pupil ratio was high.
- v. The DPI for each of home economics and industrial education (general) tended to be higher if the jurisdiction was sparsely populated.
- vi. The DPI for home economics tended to be higher while that for industrial education (vocational) tended to be lower if the elementary enrolment was low.
- vii. The DPI for each of language arts, mathematics, social studies, science and personal development tended to be lower in Region 1.
- viii. The DPI for each of second languages and industrial education (general) tended to be lower while that of home economics tended to be higher in Region 3.
- ix. The DPI for each of social studies and industrial arts (general) tended to be lower in Region 5.
- x. The DPI for each of fine arts and home economics tended to be higher in Region 6.

b. Wealth

- i. The DPI for industrial education (vocational) tended to be higher if the amount of equalized assessment per pupil was high.
- ii. The DPI for industrial education (general) tended to be higher if the unsupported debt mill rate was high.

c. Fiscal effort

- i. The DPI for each of language arts, mathematics, social studies, science, personal development, second languages and business education tended to be higher if the net supplementary requisition mill rate was high.

d. Revenue

- i. The DPI for each of language arts, social studies, second languages and business education tend to be higher if the ratio of SFPF grants received to total operational revenue was high.
- ii. The DPI for each of mathematics, fine arts, business education and industrial education (general) tended to be higher if the ratio of SGR grants received to total operational revenue was low.
- iii. The DPI for each of social studies, science, personal development and fine arts tended to higher if the total SFPF grants received per pupil was high.
- iv. The DPI for business education tended to be higher if the total SGR grants received per pupil was high.

e. Expenditure

- i. The DPI for each of language arts, mathematics, social studies, science, personal development and business education tended to be higher if the per pupil expenditure for senior high instruction was low.
- ii. The DPI for each of mathematics, business education, home economics, industrial education (general), and

- industrial education (vocational) tended to be higher
the per pupil expenditure for administration was low.
- iii. The DPI for each of mathematics and fine arts tended to
be higher if the per pupil expenditure for transportation was low.
- iv. The DPI for each of mathematics and social studies
tended to be higher if the per pupil expenditure for
operation and maintenance was high.
- v. The DPI for second languages tended to be higher if the
per pupil expenditure for elementary instruction was
high.
- vi. The DPI for business education tended to be higher if
the per pupil expenditure for junior high instruction
was low.

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT SENIOR HIGH GRADE LEVELS

This section outlines the results of the data analysis and provides
a discussion of the findings with respect to Sub-problem 3.3.

Statement of Sub-Problem 3.3

Sub-problem 3.3 was stated as follows: What is the nature and
extent of variance of the DPI for the total instructional time provided
in each of the senior high grades?

Findings

The nature and extent of variance of the DPI for the total instructional time provided in each of the senior high grades are shown in Table 6.14.

The following major findings were noted:

1. There was a slightly greater proportion of instructional time provided at the grade eleven (36.6 percent) level than at either the grade ten (30.3 percent) or twelve (33.1 percent) levels.
2. There was considerably less variation in the overall DPI at the grade ten level than that found in the overall DPI at each of the grade eleven and twelve levels.

Discussion of the Findings

Generally, there was a substantial greater amount of instructional time provided at each of the senior high grade levels than in each of the other grades at the elementary and junior high grade levels. As well, the amount of variation found in the DPI at each senior grade level tended to increase proportionately as did the mean.

PREDICTORS OF VARIANCE OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT SENIOR HIGH GRADE LEVELS

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 3.4.

Statement of Sub-Problem 3.4

Sub-problem 3.4 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the senior high grades?

Table 6.14

Extent of Variation in DPI's For Individual
Grades at the Senior High Level

Grade	Percentage of Total Program	DPI	
		Mean	Standard Deviation
10	30.32	71.72	45.88
11	36.57	86.49	67.70
12	33.11	78.32	65.94
Total Program	100.00	236.53	175.56

Findings

Grade Ten. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade ten level are shown in Table 6.15. Seven variables entered the regression equation which had an overall F ratio of 17.599 significant at the 0.000 level. The multiple R for these variables was 0.769 and R^2 was 0.592. The first three variables selected accounted for 47.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) per pupil expenditure for senior high instruction, (4) school building utilization ratio, (5) ratio of SFPPF grants received to total operational revenue, (6) net supplementary requisition mill rate, and (6) junior high enrolment.

Table 6.15 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade ten level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the school building utilization ratio was high;
- d. higher if the junior high enrolment was low;

2. Fiscal effort

- a. higher if the net supplementary requisition mill rate was high;

Table 6.15

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Ten Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.560	0.313	-0.560	-0.520
Senior high enrolment	0.636	0.404	0.383	2.035
Per pupil expenditure for senior high instruction	0.689	0.474	-0.372	-0.226
School building utilization ratio	0.716	0.512	0.076	0.231
Ratio of SFPP grants received to total operational revenue	0.742	0.551	0.252	0.199
Net supplementary requisition mill rate	0.758	0.575	0.147	0.138
Junior high enrolment	0.760	0.592	0.373	-1.744

F ratio = 17.599 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

3. Revenue

- a. higher if the ratio of SFPPF grants received to total operational revenue was high; and,

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low.

Grade Eleven. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the grade eleven level are shown in Table 6.16. Nine variables entered the regression equation which had an overall F ratio of 10.623 significant at the 0.000 level. The multiple R for these variables was 0.732 and R^2 was 0.535. The first three variables selected accounted for 42.0 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) junior high enrolment, (4) per pupil expenditure for transportation, (5) ratio of SGR grants received to total operational revenue, (6) unsupported debt mill rate, (7) total SFPPF grants received per pupil, (8) school building utilization ratio, and (9) Region 2.

Table 6.16 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the grade eleven level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;

Table 6.16

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Eleven Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.494	0.244	-0.494	-0.517
Senior high enrolment	0.597	0.356	0.406	2.906
Junior high enrolment	0.648	0.420	0.388	-2.644
Per pupil expenditure for transportation	0.673	0.453	0.031	-0.279
Ratio of SGR grants received to total operational revenue	0.696	0.484	-0.375	-0.136
Unsupported debt mill rate	0.707	0.499	0.218	0.135
Total SFPF grants received per pupil	0.715	0.511	0.211	0.188
School building utilization ratio	0.725	0.525	0.007	0.161
Region 2	0.732	0.535	-0.136	-0.106

F ratio = 10.623 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

- c. higher if the junior high enrolment was low;
- d. higher if the school building utilization ratio was high;
- e. lower if the jurisdiction was located in Region 2;

2. Wealth

- a. higher if the unsupported mill rate was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
 - b. higher if the total SFPPF grants received per pupil was high;
- and,

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low.

Grade Twelve. The regression results for the most important set of predictor variables of variance found in the DPI encompassing all subject areas at the grade twelve level are shown in Table 6.17. Six variables entered the regression equation which had an overall F ratio of 14.723 significant at the 0.000 level. The multiple R for these variables was 0.712 and R^2 was 0.507. The first three variables selected accounted for 42.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) junior high enrolment, (4) per pupil expenditure for transportation, (5) ratio of SGR grants received to total operational revenue, and (6) elementary student enrolment.

Table 6.17 reveals that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held

Table 6.17

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Grade Twelve Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.465	0.217	-0.465	-0.487
Senior high enrolment	0.602	0.362	0.447	4.216
Junior high enrolment	0.650	0.423	0.430	-6.208
Per pupil expenditure for transportation	0.679	0.461	-0.003	-0.246
Ratio of SGR grants received to total operational revenue	0.703	0.495	-0.372	-0.221
Elementary enrolment	0.712	0.507	0.423	2.315

F ratio = 14.723 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

constant, the DPI for the total instructional time provided at the grade twelve level tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the senior high enrolment was high;
 - c. higher if the junior high enrolment was low;
 - d. higher if the elementary enrolment was high;
2. Revenue
 - a. higher if the ratio of SGR grants received to total operational revenue was low; and,
3. Expenditure
 - a. higher if the per pupil expenditure for transportation was low.

Discussion of the Findings

In summary, the findings of the study related to the DPI for the total instructional time provided at each of the senior high levels were similar in terms of the proportion of the variance that was accounted for by the set of predictor variables examined in the study. The amount of variation accounted for in each DPI was as follows:

1. 59.2 percent at the grade ten level;
2. 53.5 percent at the grade eleven level; and,
3. 50.7 percent at the grade twelve level.

The most important single predictor variable at each grade level was jurisdiction type. The amount of variation accounted for by this predictor at each grade level is indicated below:

1. 31.3 percent at the grade ten level;

2. 24.4 percent at the grade eleven level; and,
3. 21.7 percent at the grade twelve level.

The following is a summary of the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five categories of predictor variables had on various DPI's:

1. Demographic characteristics

- a. The DPI for each of the senior high grades tended to be higher if:
 - i. the jurisdiction was a public school district;
 - ii. the junior high enrolment was low; and,
 - iii. the senior high enrolment was high.
- b. The DPI for each of grades ten and eleven tended to be higher if the school building utilization ratio was high.
- c. The DPI for grade eleven tended to be lower in Region 1.
- d. The DPI for grade twelve tended to be higher if the elementary enrolment was high.

2. Wealth

- a. The DPI for grade eleven tended to be higher if the unsupported mill debt rate was high.

3. Fiscal effort

- a. The DPI for grade ten tended to be higher if the net supplementary requisition mill rate was high.

4. Revenue

- a. The DPI for each of grades ten and eleven tended to be higher if the ratio of SPPF grants received to total operational revenue was high.

- b. The DPI for each of grades eleven and twelve tended to be higher if the ratio of SGR grants received to total operational revenue was low.

5. Expenditure

- a. The DPI for each of grades eleven and twelve tended to be higher if the per pupil expenditure for transportation was low.
- b. The DPI for grade ten tended to be higher if the per pupil expenditure for senior high instruction was low.

VARIATION OF THE DPI FOR THE TOTAL INSTRUCTIONAL
TIME PROVIDED AT THE SENIOR HIGH LEVEL

This section presents the results of the data analysis and provides a discussion of the findings with regard to Sub-problem 3.5.

Statement of Sub-Problem 3.5

Sub-problem 3.5 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided at the senior high level?

Findings

As indicated previously in Table 6.14, the DPI for the total instructional time provided at the senior high level had a mean of 236.5 credit-equivalent units and a standard deviation of 175.6.

Discussion of the Findings

The standard deviation of the DPI for the total instructional time provided at the senior high level was almost the same as the sum of the standard deviation of the DPI for the total instructional time provided

at each of the senior high grades. This would seem to suggest that those jurisdictions which had a lower DPI in any one of the senior high grades, also had a similar lower DPI in each of the remaining two senior high grades.

PREDICTORS OF VARIANCE OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED AT THE SENIOR HIGH LEVEL

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 3.6.

Statement of Sub-Problem 3.6

Sub-problem 3.6 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided at the senior high level?

Findings

The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided at the senior high level are shown in Table 6.18. Nine variables entered the regression equation which had an overall F ratio of 11.997 significant at the 0.000 level. The multiple R for these variables was 0.752 and R^2 was 0.565. The first three variables selected accounted for 43.9 percent of the variance noted. The predictor variables, in order of relative importance, were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) junior high enrolment, (4) per pupil expenditure for transportation, (5) ratio of SGR grants received to total operational revenue, (6) school building utilization ratio, (7)

Table 6.18

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided at the Senior High Level

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.512	0.262	-0.512	-0.488
Senior high enrolment	0.621	0.385	0.424	2.524
Junior high enrolment	0.662	0.439	0.408	-2.235
Per pupil expenditure for transportation	0.686	0.471	0.042	-0.275
Ratio of SGR grants received to total operational revenue	0.714	0.510	-0.403	-0.136
School building utilization ratio	0.725	0.525	0.028	0.167
Total SFPF grants received per pupil	0.734	0.538	0.218	0.217
Net supplementary requisition mill rate	0.743	0.551	0.200	0.139
Per pupil expenditure for senior high instruction	0.752	0.565	-0.264	-0.131

F ratio = 11.997 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

total SFPF grants received per pupil, (8) net supplementary requisition mill rate, and (9) per pupil expenditure for senior high instruction.

Table 6.18 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided at the senior high level tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the junior high enrolment was low;
- d. higher if the school building utilization ratio was high;

2. Fiscal effort

- a. higher if the net supplementary requisition was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the total SFPF grants received per pupil was high;

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low; and,
- b. higher if the per pupil expenditure for senior high instruction was low.

Discussion of the Findings

The findings of this study indicate that approximately one-half of the variation found in the overall DPI at the senior high level could be

accounted for in terms of five predictor variables. The first two predictors selected, jurisdiction type and senior high enrolment, interacted in combination to account for approximately 39 percent of the variance noted. Generally, public school districts characterized by a high proportion of senior high students and a low proportion of junior high students, a low per pupil expenditure for transportation, and a low ratio of SGR grants received to total operational revenue were able to provide more extensive curricular programs at the senior high level.

SUMMARY OF CHAPTER 6

The results of this study indicate that the total instructional time provided in major subject areas at each of the senior high grade levels varied substantially among Alberta school jurisdictions. In terms of the set of predictor variables examined in the study, the proportion of variation which could be accounted for in each of the grade DPI's ranged from approximately 51 percent at the grade twelve level to 59 percent at the grade ten level. Jurisdiction type and number of senior high students accounted for over one-third of the variation found at each of the senior high grade levels.

The findings of the study also show that the DPI's for each of the major subject areas at the senior high level varied along four major dimensions. First, in the total amount of instructional time which generally was provided in each of the major subject areas. It was noted that the greatest proportion of the senior high program was devoted to the study of business education (13.4 percent) while the least was devoted to the study of general industrial education (3.8 percent). Second, in the amount of variation found in the DPI for each of the

major subject areas which could be accounted for in terms of the set of predictor variables examined in the study. The amount of explained variation for each of the DPI's ranged from 37.0 percent for general industrial education to 70.5 percent for science. Third, in the nature of the predictor which was found to account for the greatest proportion of variance noted in each of the DPI's. Jurisdiction type was found to be the most important single predictor of variance accounted for in the DPI for each of language arts, mathematics, social studies, science, personal development, business education, home economics, and industrial education (general). Senior high enrolment had the most predictive value for variance accounted for in the DPI for each of fine arts, industrial education (vocational), and second languages. Fourth, in the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five broad categories of predictor variables had on various subject area DPI's. A total of 23 of the 32 predictor variables examined in the study entered one or more of the regression equations.

In summary, public school districts characterized by a high proportion of senior high students and a low proportion of junior high students, a low per pupil expenditure for transportation, and a low ratio of SGR grants received to total operational revenue were able to provide more extensive curricular programs at the senior high level.

Chapter 7

ANALYSIS AND FINDINGS FOR MAJOR SUBJECT AREAS IN GRADES ONE THROUGH TWELVE

This chapter presents the results of the data analysis and provides a discussion of the findings with respect to Sub-problems 4.1 through 4.4 of Problem 4. Problem 4 was stated as follows: To what extent may the variance of DPI's for the total instructional time provided in major subject areas, grades one through twelve, be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

VARIATION OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS IN GRADES ONE THROUGH TWELVE

This section reports the results of the data analysis and provides a discussion of findings with regard to Sub-problem 4.1.

Statement of Sub-Problem 4.1

Sub-problem 4.1 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in each of the major subject areas, grades one through twelve?

Findings

Table 7.1 presented below gives a summary of the nature and extent of variation found in the DPI for the total instructional time provided

in each of the major subject areas, grades one through twelve. It was found that the overall allocation of instructional time to various subject areas, grades one through twelve, was approximately as follows: (1) 25 percent for language arts, (2) 34 percent for mathematics, social studies and science, (3) 18 percent for personal development and fine arts, (4) 15 percent for business education, home economics and industrial education, and (5) 8 percent for second languages and other subjects. There was considerably less variation in the DPI's for each of language arts, mathematics, social studies, science and personal development than for each of the remaining subject areas.

Table 7.1

Variation of DPI's for the Total Instructional Time Provided
in Major Subject Areas in Grades One Through Twelve

Major Subject Areas	Grades Applicable	Percentage of Total Program	DPI	
			Mean	Standard Deviation
Language Arts	1-12	24.50	151.15	23.91
Mathematics	1-12	13.23	81.64	19.18
Social Studies	1-12	10.79	66.56	14.22
Science	1-12	10.28	63.40	19.09
Personal Development	1-12	9.30	57.36	11.14
Fine Arts	1-12	8.61	53.13	27.39
Second Languages	1-12	3.86	23.84	15.96
Business Education	7-12	5.66	34.95	22.89
Home Economics	7-12	2.77	17.07	14.33
Industrial Education (General)	7-12	2.17	13.36	11.13
Industrial Education (Vocational)	10-12	4.40	27.16	66.53
Other Subject Areas	1-12	4.8	27.37	13.74
Total Program	1-12	100.00	617.00	191.02

Discussion of the Findings

Generally, the DPI's for the total instructional time provided in each of the major subject areas, grades one through twelve, were much higher and were found to vary considerably less in those subject areas considered as the prescribed core curriculum at the elementary level (i.e., language arts, mathematics, social studies, science, personal development and fine arts).

PREDICTORS OF VARIANCE OF DPI'S FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN MAJOR SUBJECT AREAS IN GRADES ONE THROUGH TWELVE

This section reports the results of the data analysis and provides a discussion of the findings with regard to Sub-problem 4.2.

Statement of Sub-Problem 4.2

Sub-problem 4.2 was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in each of the major subject areas, grades one through twelve?

Findings

Language Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in language arts in grades one through twelve are shown in Table 7.2. Eleven variables entered the regression equation which had an overall F ratio of 9.670 significant of the 0.000 level. The multiple R for these variables was 0.758 and R^2 was 0.575. The first four variables selected accounted for 48.4 percent of the variance noted. The predictor variables in order of relative importance

Table 7.2

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Language Arts in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.584	0.341	-0.584	-0.444
Per pupil expenditure for senior high instruction	0.632	0.399	-0.349	-0.242
School building utilization ratio	0.667	0.446	0.086	0.251
Ratio of SGR grants received to total operational revenue	0.695	0.483	-0.458	-0.303
Ratio of SFPF grants received to total operational revenue	0.702	0.493	0.232	0.312
Per pupil expenditure for operation and maintenance	0.718	0.516	0.206	0.205
Per pupil expenditure for transportation	0.729	0.531	0.202	-0.415
Total operational revenue per pupil	0.735	0.541	0.119	0.641
Amount of supplementary requisition levied per pupil	0.744	0.553	0.245	-0.303
Unsupported debt mill rate	0.751	0.565	-0.076	-0.172
Per pupil expenditure for junior high instruction	0.758	0.575	-0.207	-0.123

F ratio = 9.670 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) school building utilization ratio, (4) ratio of SGR grants received to total operational revenue, (5) ratio of SFPPF grants received to total operational revenue, (6) per pupil expenditure for operation and maintenance, (7) per pupil expenditure for transportation, (8) total operational revenue per pupil, (9) amount of supplementary requisition levied per pupil, (10) unsupported debt mill rate, and (11) per pupil expenditure for junior high instruction.

Table 7.2 shows that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in language arts, grades one through twelve, tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

4. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the ratio of SFPPF grants received to total operational revenue was high;
- c. higher if the total operational revenue per pupil was high;

5. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for operation and maintenance was high;
- c. higher if the per pupil expenditure for transportation was low; and,
- d. higher if the per pupil expenditure for junior high instruction was low.

Mathematics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in mathematics in grades one through twelve are shown in Table 7.3. Ten variables entered the regression equation which had an overall F ratio of 11.620 significant at the 0.000 level. The multiple R for these variables was 0.766 and R^2 was 0.586. The first three variables selected accounted for 44.8 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) per pupil expenditure for administration, (4) ratio of SGR grants received to total operational revenue, (5) total SGR grants received per pupil, (6) per pupil expenditure for transportation, (7) ratio of SFPPF grants received to total operational revenue, (8) school building utilization ratio, (9) senior high enrolment, and (10) junior high enrolment.

Table 7.3 indicates that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held

Table 7.3

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Mathematics in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.561	0.315	-0.571	-0.337
Per pupil expenditure for senior high instruction	0.626	0.392	-0.380	-0.265
Per pupil expenditure for administration	0.670	0.448	-0.369	-0.192
Ratio of SGR grants received to total operational revenue	0.688	0.474	-0.473	-1.146
Total SGR grants received per pupil	0.709	0.503	-0.376	1.032
Per pupil expenditure for transportation	0.724	0.524	0.165	-0.128
Ratio of SFPPF grants to total operational revenue	0.739	0.546	0.238	0.196
School building utilization ratio	0.746	0.557	0.039	0.161
Senior high enrolment	0.753	0.567	0.253	2.023
Junior high enrolment	0.766	0.586	0.246	-1.923

F ratio = 11.620 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

constant, the DPI for the total instructional time provided in mathematics in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. higher if the senior high enrolment was high;
- d. higher if the junior high enrolment was low;

2. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the SGR grants received per pupil was high;
- c. higher if the SFPF grants received to total operational revenue was high;

3. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for administration was low; and,
- c. higher if the per pupil expenditure for transportation was low.

Social Studies. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in social studies in grades one through twelve are shown in Table 7.4. Fourteen variables entered the regression equation which had an F ratio of 13.744 significant at the 0.000 level. The multiple R for these variables was 0.844 and R^2 was 0.712. The first four variables selected accounted for 48.8 percent of the

Table 7.4

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Social Studies in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Per pupil expenditure for senior high instruction	0.484	0.234	-0.484	-0.564
Ratio of supplementary requisition levied to total operational revenue	0.612	0.375	0.375	0.999
Per pupil expenditure for administration	0.664	0.441	-0.281	-0.190
School building utilization ratio	0.698	0.488	0.115	0.229
Total SFPF grants received per pupil	0.734	0.539	0.278	0.404
Net supplementary requisition mill rate	0.764	0.584	0.225	0.199
Region 2	0.775	0.600	0.002	0.139
Urban pupil ratio	0.786	0.618	-0.117	0.379
Jurisdiction type	0.803	0.644	-0.439	-0.111
Per pupil expenditure for operation and maintenance	0.809	0.654	0.090	0.090
Amount of supplementary requisition levied per pupil	0.818	0.669	0.267	-1.249
Total operational expenditure per pupil	0.827	0.684	0.064	0.660
Total SGR grants received per pupil	0.837	0.701	-0.390	-0.209
Per pupil expenditure for junior high instruction	0.844	0.712	-0.188	-0.125

F ratio = 13.744 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

variance noted. The predictor variables in order of relative importance were as follows: (1) per pupil expenditure for senior high instruction, (2) ratio of the supplementary requisition levied to total operational revenue, (3) per pupil expenditure for administration, (4) school building utilization ratio, (5) total SFPF grants received per pupil, (6) net supplementary requisition mill rate, (7) Region 2, (8) urban pupil ratio, (9) jurisdiction type, (10) per pupil expenditure for operation and maintenance, (11) amount of supplementary requisition levied per pupil, (12) total operational expenditure per pupil, (13) total SGR grants received per pupil, and (14) per pupil expenditure for junior high instruction.

Table 7.4 shows that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in social studies in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the school building utilization ratio was high;
- b. higher if the jurisdiction was located in Region 2;
- c. higher if the urban pupil ratio was high;
- d. higher if the jurisdiction was a public school district;

2. Fiscal effort

- a. higher if the ratio of supplementary requisition levied to total operational revenue was high;
- b. higher if the net supplementary requisition mill rate was high;

- c. higher if the amount of supplementary requisition levied per pupil was low;

3. Revenue

- a. higher if the total SFPF grants received per pupil was high;
- b. higher if the total SGR grants received per pupil was low;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for administration was low;
- c. higher if the per pupil expenditure for operation and maintenance was high;
- d. higher if the total operational expenditure per pupil was high; and,
- e. higher if the per pupil expenditure for junior high instruction was low.

Science. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in science in grades one through twelve are shown in Table 7.5. Twelve variables entered the regression equation which had an overall F ratio of 11.987 significant at the 0.000 level. The multiple R for these variables was 0.802 and R^2 was 0.643. The first five variables selected accounted for 54.0 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) ratio of SGR grants received to total operational revenue, (2) jurisdiction type, (3) per pupil expenditure for senior high instruction, (4) total SFPF grants received per pupil, (5) school build-

Table 7.5

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Science in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Ratio of SGR grants received to total operational revenue	0.544	0.296	-0.544	-0.378
Jurisdiction type	0.623	0.388	-0.506	-0.271
Per pupil expenditure for senior high instruction	0.674	0.455	-0.421	-0.389
Total SFPF grants received per pupil	0.701	0.492	0.423	0.262
School building utilization ratio	0.735	0.540	0.009	0.212
Per pupil expenditure for transportation	0.749	0.561	0.249	-0.461
Total operational expenditure per pupil	0.754	0.569	0.137	0.781
Ratio of SFPF grants received to total operational expenditure	0.769	0.591	0.371	0.231
Amount of supplementary requisition levied per pupil	0.779	0.607	0.277	-0.308
Per pupil expenditure for elementary instruction	0.786	0.618	0.055	-0.160
Net supplementary requisition mill rate	0.794	0.631	0.048	0.139
Region 1	0.802	0.643	-0.260	-0.126

F ratio = 11.987 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

ing utilization ratio, (6) per pupil expenditure for transportation, (7) total operational expenditure per pupil, (8) ratio of SFPF grants received to total operational expenditure, (9) amount of supplementary requisition levied per pupil, (10) per pupil expenditure for elementary instruction, (11) net supplementary requisition mill rate, and (12) Region 1.

Table 7.5 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in science in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the school building utilization ratio was high;
- c. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;
- b. higher if the net supplementary requisition mill rate was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the total SFPF grants received per pupil was high;
- c. higher if the ratio of SFPF grants received to total operational revenue was high;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for transportation was low;
- c. higher if the total operational expenditure per pupil was high; and,
- d. higher if the per pupil expenditure for elementary instruction was low.

Personal Development. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in personal development in grades one through twelve are shown in Table 7.6. Eight variables entered the regression equation which had an overall F ratio of 6.736 significant at the 0.000 level. The first three variables selected accounted for 30.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) per pupil expenditure for elementary instruction, (4) per pupil expenditure for administration, (5) total operational expenditure per pupil, (6) total operational revenue per pupil, (7) Region 5, and (8) ratio of SGR grants received to total operational revenue.

Table 7.6 indicates that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in personal development in grades one through twelve tended to be as follows:

Table 7.6

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Personal Development in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.455	0.207	-0.455	-0.262
Per pupil expenditure for senior high instruction	0.514	0.264	-0.322	-0.281
Per pupil expenditure for elementary instruction	0.554	0.306	-0.100	-0.337
Per pupil expenditure for administration	0.570	0.325	-0.272	-0.246
Total operational expenditure per pupil	0.584	0.341	0.033	0.920
Total operational revenue per pupil	0.602	0.363	0.008	-0.633
Region 5	0.615	0.379	-0.049	-0.151
Ratio of SGR grants received to total operational revenue	0.625	0.391	-0.363	-0.130

F ratio = 6.736 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in Region 5.

2. Revenue

- a. higher if the total operational revenue per pupil was low;
- b. higher if the ratio of SGR grants received to total operational revenue was low;

3. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low;
- b. higher if the per pupil expenditure for elementary instruction was low;
- c. higher if the per pupil expenditure for administration was low; and,
- d. higher if the total operational expenditure per pupil was high.

Fine Arts. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in fine arts in grades one through twelve are shown in Table 7.7. Six variables entered the regression equation which had an overall F ratio of 11.457 significant at the 0.000 level. The multiple R for these variables was 0.667 and R^2 was 0.444. The first three variables selected accounted for 36.0 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) per pupil expenditure for senior high instruction, (3) per pupil expenditure for transportation, (4) ratio of

Table 7.7

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Fine Arts in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.423	0.179	-0.423	-0.288
Per pupil expenditure for senior high instruction	0.542	0.294	0.399	0.288
Per pupil expenditure for transportation	0.600	0.360	-0.044	-0.316
Ratio of SGR grants received to total operational revenue	0.645	0.416	-0.387	-0.230
Region 6	0.655	0.429	0.169	0.149
Region 3	0.667	0.444	0.117	0.128

F ratio = 9.030 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

SGR grants received to total operational revenue, (5) Region 6, and (6) Region 3.

Table 7.7 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in science in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the jurisdiction was located in either Region 3 or 6;

2. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

3. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was high; and,
- b. higher if the per pupil expenditure for transportation was low.

Second Languages. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in second languages in grades one through twelve are shown in Table 7.8. Thirteen variables entered the regression equation which had an overall F ratio of 5.278 significant at the 0.000 level. The multiple R for these variables was 0.682 and R^2 was 0.464. The first four variables selected accounted for 26.1 percent of the variance noted. The predictor variables in order of relative impor-

Table 7.8

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Second Languages in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Senior high enrolment	0.355	0.126	0.355	2.699
Region 2	0.417	0.174	0.192	0.146
Region 3	0.473	0.224	0.153	0.186
Junior high enrolment	0.511	0.261	0.344	-2.380
Jurisdiction type	0.536	0.287	-0.204	-0.403
Per pupil expenditure for transportation	0.592	0.350	-0.208	-0.524
Region 5	0.600	0.360	-0.218	-0.121
Total operational expenditure per pupil	0.608	0.370	-0.084	0.800
Per pupil expenditure for operation and maintenance	0.630	0.397	-0.105	-0.192
School building utilization ratio	0.642	0.411	0.173	-0.301
Unsupported debt mill rate	0.654	0.428	-0.095	-2.289
Amount of supplementary requisition levied per pupil	0.673	0.453	-0.024	-0.322
Ratio of SFPPF grants received to total operational revenue	0.682	0.464	0.079	0.145

F ratio = 5.278 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

tance were as follows: (1) senior high enrolment, (2) Region 2, (3) Region 3, (4) junior high enrolment, (5) jurisdiction type, (6) per pupil expenditure for transportation, (7) Region 5, (8) total operational expenditure per pupil, (9) per pupil expenditure for operation and maintenance, (10) school building utilization ratio, (11) unsupported debt mill rate, (12) amount of supplementary requisition levied per pupil, and (13) ratio of SFPF grants received to total operational revenue.

Table 7.8 indicates that the above predictors were measures from all five of the broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in second languages in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the senior high enrolment was high;
- b. higher if the jurisdiction was located in either Region 2 or 3;
- c. higher if the junior high enrolment was low;
- d. higher if the jurisdiction was a public school district;
- e. lower if the jurisdiction was located in Region 5;
- f. higher if the school building utilization ratio was high;

2. Wealth

- a. higher if the unsupported debt mill rate was low;

3. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

4. Revenue

- a. higher if the ratio of SFPF grants received to total operational revenue was high;

5. Expenditure

- a. higher if the per pupil expenditure for transportation was low;
- b. higher if the total operational expenditure per pupil was high; and,
- c. higher if the per pupil expenditure for operation and maintenance was low.

Business Education. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in business education in grades seven through twelve are shown in Table 7.9. Nine variables entered the regression equation which had an overall F ratio of 12.071 significant at the 0.000 level. The multiple R for these variables was 0.753 and R^2 was 0.567. The first three variables selected accounted for 43.4 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) ratio of SGR grants received to total operational revenue, (4) junior high enrolment, (5) school building utilization ratio, (6) net supplementary requisition mill rate, (7) per pupil expenditure for senior high instruction, (8) ratio of SFPF grants received to total operational revenue, and (9) total operational expenditure per pupil.

Table 7.9 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the

Table 7.9

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Business Education in Grades Seven Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.546	0.298	-0.546	-0.367
Senior high enrolment	0.612	0.374	0.356	2.503
Ratio of SGR grants received to total operational revenue	0.659	0.434	-0.470	-0.674
Junior high enrolment	0.683	0.466	0.344	-2.247
School building utilization ratio	0.702	0.493	0.004	0.175
Net supplementary requisition mill rate	0.716	0.512	0.202	0.174
Per pupil expenditure for senior high instruction	0.733	0.537	-0.321	-0.185
Ratio of SFPF grants received to total operational revenue	0.740	0.547	0.222	0.198
Total operational expenditure per pupil	0.753	0.567	-0.382	0.543

F ratio = 12.071 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in business education in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the junior high enrolment was low;
- d. higher if the school building utilization was high;

2. Fiscal effort

- a. higher if the net supplementary requisition mill rate was high;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;
- b. higher if the ratio of SFPF grants received to total operational revenue was high;

4. Expenditure

- a. higher if the per pupil expenditure for senior high instruction was low; and,
- b. higher if the total operational expenditure per pupil was high.

Home Economics. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in home economics in grades seven through twelve are shown in Table 7.10. Nine variables entered the regression equation which had an overall F ratio of 8.486 significant at the 0.000 level. The multiple R for these variables 0.692 and R^2 was 0.479. The

Table 7.10

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Home Economics in Grades Seven Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.466	0.217	-0.466	-0.433
Senior high enrolment	0.568	0.322	0.392	2.019
Urban pupil ratio	0.600	0.361	-0.080	0.479
Sparsity of pupil population	0.629	0.396	0.198	0.327
Region 5	0.647	0.418	-0.131	-0.182
Ratio of SGR grants received to total operational revenue	0.664	0.441	-0.344	-0.498
Per pupil expenditure for administration	0.675	0.455	-0.338	-0.178
Junior high enrolment	0.685	0.469	0.385	-1.807
Total SGR grants received per pupil	0.692	0.479	-0.271	0.367

F ratio = 8.486 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

first three variables selected accounted for 36.1 percent of the variance noted. The predictor variables in order of relative importance were as follows; (1) jurisdiction type, (2) senior high enrolment, (3) urban pupil ratio, (4) sparsity of pupil population, (5) Region 5, (6) ratio of SGR grants received to total operational revenue, (7) per pupil expenditure for administration, (8) junior high enrolment, and (9) total SGR grants received per pupil.

Table 7.10 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in home economics in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. higher if the senior high enrolment was high;
- c. higher if the urban pupil ratio was high;
- d. higher the greater the degree of sparsity of pupil population;
- e. lower if the jurisdiction was located in Region 5;
- f. higher if the junior high enrolment was low:

2. Revenue

- a. higher if the ratio of SGR grants to total operational revenue was low;
- b. higher if the SGR grants received per pupil was high; and,

3. Expenditure

- a. higher if the per pupil expenditure for administration was low.

Industrial Education (General). The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in industrial education (general) in grades seven through twelve are shown in Table 7.11. Eight variables entered the regression equation which had an overall F ratio of 7.202 significant at the 0.000 level. The multiple R for these variables was 0.638 and R^2 was 0.407. The first variables selected accounted for 31.3 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) Region 5, (3) ratio of SGR grants received to total operational revenue, (4) unsupported debt mill rate, (5) per pupil expenditure for transportation, (6) Region 4, (7) per pupil expenditure for elementary instruction, and (8) sparsity of pupil population.

Table 7.11 indicates that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in industrial education (general) in grades seven through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was a public school district;
- b. lower if the jurisdiction was located in either Region 4 or 5;
- c. higher the greater the degree of sparsity of pupil population;

2. Wealth

- a. higher if the unsupported debt mill rate was high;

Table 7.11

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Industrial Education (General) in Grades Seven Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.534	0.285	-0.534	-0.484
Region 5	0.559	0.313	-0.100	-0.185
Ratio of SGR grants received to total operational revenue	0.579	0.336	-0.343	-0.257
Unsupported debt mill rate	0.597	0.357	0.024	0.138
Per pupil expenditure for transportation	0.609	0.371	0.174	-0.218
Region 4	0.620	0.384	-0.047	-0.112
Per pupil expenditure for elementary instruction	0.629	0.395	0.212	0.122
Sparsity of pupil population	0.638	0.407	0.322	0.141

F ratio = 7.202 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was low;

4. Expenditure

- a. higher if the per pupil expenditure for transportation was low; and,
- b. higher if the per pupil expenditure for elementary instruction was high.

Other Subject Areas. The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in other subject areas in grades one through twelve are shown in Table 7.12. Eleven variables entered the regression equation which had an overall F ratio of 4.747 significant at the 0.000 level. The multiple R for these variables was 0.626 and R^2 was 0.392. The first five variables selected accounted for 24.6 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) amount of supplementary requisition levied per pupil, (2) per pupil expenditure for operation and maintenance, (3) per pupil expenditure for administration, (4) ratio of SGR grants received to total operational revenue, (5) Region 7, (6) school building utilization ratio, (7) total SFPPF grants received per pupil, (8) Region 1, (9) per pupil expenditure for transportation, (10) total operational expenditure per pupil, and (11) total SGR grants received per pupil.

Table 7.12 reveals that the above predictors were measures from only four of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in other

Table 7.12

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Other Subject Areas in Grades One through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Amount of supplementary requisition levied per pupil	0.341	0.117	-0.342	-0.845
Per pupil expenditure for operation and maintenance	0.389	0.151	-0.332	-0.119
Per pupil expenditure for administration	0.419	0.176	0.085	0.265
Ratio of SGR grants received to total operational revenue	0.457	0.209	0.026	0.407
Region 7	0.496	0.246	0.063	0.180
School building utilization ratio	0.515	0.266	0.231	0.238
Total SFPF grants received per pupil	0.542	0.294	-0.109	0.323
Region 1	0.560	0.313	-0.085	-0.153
Per pupil expenditure for transportation	0.576	0.332	-0.331	-0.497
Total operational expenditure per pupil	0.610	0.372	-0.279	0.831
Total SGR grants received per pupil	0.626	0.392	-0.060	-0.885

F ratio = 4.747 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

subject areas in grades one through twelve tended to be as follows:

1. Demographic characteristics

- a. higher if the jurisdiction was located in Region 7;
- b. higher if the school building utilization ratio was high;
- c. lower if the jurisdiction was located in Region 1;

2. Fiscal effort

- a. higher if the amount of supplementary requisition levied per pupil was low;

3. Revenue

- a. higher if the ratio of SGR grants received to total operational revenue was high;
- b. higher if the total SFPF grants received per pupil was high;
- c. higher if the total SGR grant received per pupil was low;

4. Expenditures

- a. higher if the per pupil expenditure for operation and maintenance was low;
- b. higher if the per pupil expenditure for administration was high;
- c. higher if the per pupil expenditure for transportation was low; and,
- d. higher if the total operational expenditure per pupil was low.

Discussion of the Findings

Generally, the findings of the study related to the DPI's for the total instructional time provided in major subject areas, grades one through twelve, indicated that:

1. There were some differences in the extent to which the variance found in each of the DPI's could be accounted for in terms of the predictor variables examined in the study. The amount of variance accounted for in each case was as follows:
 - a. 71.2 percent in social studies;
 - b. 64.3 percent in science;
 - c. 58.6 percent in mathematics;
 - d. 57.5 percent in language arts;
 - e. 56.7 percent in business education;
 - f. 47.9 percent in home economics;
 - g. 46.9 percent in industrial education (vocational);
 - h. 46.4 percent in second languages;
 - i. 44.4 percent in fine arts;
 - j. 40.7 percent in industrial education (general); and,
 - k. 39.1 percent for personal development.
2. The most amount of explained variance in each DPI was due to one of four predictor variables. It was found that:
 - a. Jurisdiction type accounted for
 - i. 34.1 percent of the variation found in language arts;
 - ii. 31.5 percent of the variation found in mathematics;
 - iii. 29.8 percent of the variation found in business education;
 - iv. 28.5 percent of the variation found in industrial education (general);
 - v. 21.7 percent of the variation found in home economics;
 - vi. 20.7 percent of the variation found in personal development; and,

- vii. 17.9 percent of the variation found in fine arts.
 - b. Senior high enrolment accounted for
 - i. 19.5 percent of the variation found in industrial education (vocational); and,
 - ii. 12.6 percent of the variation found in second languages.
 - c. The ratio of SGR grants received to total operational revenue accounted for 29.6 percent of the variation found in science.
 - d. The per pupil expenditure for senior high instruction accounted for 23.4 percent of the variation found in social studies.
3. There was a substantial degree of consistency noted in the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five categories of predictor variables had on various DPI's. The findings relative to each predictor within each category were as follows:
- a. Demographic characteristics
 - i. The DPI for each of the major subject areas tended to be higher if the jurisdiction was a public school district.
 - ii. The DPI for each of language arts, mathematics, social studies, science, second languages and business education tended to be higher if the school building utilization ratio was high.
 - iii. The DPI for each of mathematics, second languages, business education and home economics tended to be higher if the junior high enrolment was low and the senior high enrolment was high.

- iv. The DPI for each of home economics and industrial education (general) tended to be higher the greater the degree of sparsity of pupil population.
 - v. The DPI for social studies tended to be higher if the urban pupil ratio was high.
 - vi. The DPI for science tended to be lower in Region 1.
 - vii. The DPI for each of social studies and second languages tended to be higher in Region 2.
 - viii. The DPI for each of fine arts and second languages tended to be higher in Region 3.
 - ix. The DPI for industrial education (general) tended to be lower in Region 4.
 - x. The DPI for each of personal development, second languages, home economics and industrial education (general) tended to be lower in Region 5.
 - xi. The DPI for fine arts tended to be higher in Region 6.
- b. Wealth
- i. The DPI for each of language arts, industrial education (general) and industrial education (vocational) tended to be higher while that of second languages tended to be lower if the unsupported mill rate was high.
- c. Fiscal effort
- i. The DPI for each of social studies, science and business education tended to be higher if the net supplementary requisition mill rate was high.
 - ii. The DPI for each of language arts, social studies, science and second languages tended to be higher if the

amount of supplementary requisition levied per pupil was low.

- iii. The DPI for social studies tended to be higher if the ratio of the supplementary requisition levied to total operational revenue was high.

d. Revenue

- i. Except for second languages, the DPI for each of the major subject areas tended to be higher if the ratio of SGR grants received to total operational revenue was low.
- ii. The DPI for each of language arts, mathematics, social studies, science, second languages and business education tended to be higher if the ratio of SFPPF grants received to total operational revenue was high.
- iii. The DPI for each of mathematics and home economics tended to be higher if the total SGR grants received per pupil were high.
- iv. The DPI for language arts tended to be higher while that for personal development tended to be lower if the total operational revenue per pupil was high.
- v. The DPI for science tended to be higher if the total SFPPF grants received per pupil was high.

e. Expenditure

- i. The DPI for each of language arts, mathematics, science, fine arts, second languages and industrial education (both general and vocational) tended to be higher if the per pupil expenditure for transportation was low.

- ii. The DPI for each of language arts, mathematics, social studies, science, personal development and business education tended to be higher while that for fine arts tended to be lower if the per pupil expenditure for senior high instruction was low.
- iii. The DPI for each of social studies, science, personal development, second languages and business education tended to be higher if the total operational expenditure per pupil was high.
- iv. The DPI for each of mathematics, social studies, personal development and home economics tended to be higher if the per pupil expenditure for administration was low.
- v. The DPI for each of language arts and social studies tended to be higher while that for second languages tended to be lower if the per pupil expenditure for operation and maintenance was high.
- vi. The DPI for each of science and personal development tended to be higher while that for industrial education (general) tended to be lower if the per pupil expenditure for elementary education was low.
- vii. The DPI for each of language arts and social studies tended to be higher if the per pupil expenditure for junior high instruction was low.

VARIATION OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN GRADES ONE THROUGH TWELVE

This section presents the results of the data analysis and provides a discussion of the findings with regard to Sub-problem 4.3.

Statement of Sub-Problem 4.3

Sub-problem 4.3 was stated as follows: What is the nature and extent of variance of the DPI for the total instructional time provided in grades one through twelve?

Findings

As indicated previously in Table 7.1, the DPI for the total instructional time provided in grades one through twelve had a mean of 617.0 credit-equivalent units and a standard deviation of 191.0.

Discussion of the Findings

The standard deviation of the DPI for the total instructional time provided in grades one through twelve was slightly greater than that noted at the senior high level (191 as compared to 175), and substantially greater than that noted at the junior high level (27.0) or the elementary level (13.7). This would seem to suggest that to some extent those jurisdictions which tended to have a lower DPI at one divisional level (i.e., elementary, junior or senior high) also had a lower DPI at each of the other divisional levels.

PREDICTORS OF VARIANCE OF THE DPI FOR THE TOTAL INSTRUCTIONAL TIME PROVIDED IN GRADES ONE THROUGH TWELVE

This section reports the results of the data analysis and provides a discussion of the findings with respect to Sub-problem 4.3.

Statement of Sub-Problem 4.4

Sub-problem 4.4. was stated as follows: To what extent do certain measures of demographic, wealth, fiscal effort, revenue and expenditure variables account for the variance of the DPI for the total instructional time provided in grades one through twelve?

Findings

The regression results for the most important set of predictor variables of variance found in the DPI for the total instructional time provided in grades one through twelve are shown in Table 7.13. Seven variables entered the regression equation which had an overall F ratio of 14.941 significant at the 0.000 level. The multiple R for these variables was 0.743 and R^2 was 0.552. The first four variables selected accounted for 39.1 percent of the variance noted. The predictor variables in order of relative importance were as follows: (1) jurisdiction type, (2) senior high enrolment, (3) per pupil expenditure for transportation, (4) ratio of SGR grants received to total operational revenue, (5) junior high enrolment, (6) school building utilization ratio, and (7) total SFPF grants received per pupil.

Table 7.13 shows that the above predictors were measures from only three of the five broad categories of predictor variables examined in the study. When the effects of the other predictors were held constant, the DPI for the total instructional time provided in grades one through twelve tended to be as follows:

1. Demographic characteristics
 - a. higher if the jurisdiction was a public school district;
 - b. higher if the senior high enrolment was high;
 - c. higher if the junior high was low;

Table 7.13

Proportion of Variance Predicted in the DPI for the Total Instructional Time Provided in Grades One Through Twelve

Predictor ^a	Multiple R	R ²	Simple R	Beta
Jurisdiction type	0.513	0.264	-0.513	-0.554
Senior high enrolment	0.611	0.373	0.404	2.814
Per pupil expenditure for transportation	0.664	0.440	0.005	-0.345
Ratio of SGR grants received to total operational revenue	0.701	0.491	-0.414	-0.216
Junior high enrolment	0.723	0.523	0.389	-2.560
School building utilization ratio	0.735	0.541	0.056	0.167
Total SFPF grants received per pupil	0.743	0.552	0.185	0.154

F ratio = 14.941 Probability = 0.000

^a Only includes predictors where the R² change was at least 0.010.

d. higher if the school building utilization ratio was high;

2. Revenue

a. higher if the ratio of SGR grants received to total operational revenue was low;

b. higher if the total SFPPF grants received per pupil was high; and,

3. Expenditure

a. higher if the per pupil expenditure for transportation was low.

Discussion of the Findings

The findings of the study show that approximately one-half of the variation noted in the overall DPI, grades one through twelve, could be accounted for in terms of four predictor variables examined in study. Generally, public school districts characterized by large senior high enrolments, low per pupil expenditures for transportation, and low ratios of SGR grants received to total operational revenue, were able to provide more extensive curricular programs in grades one through twelve. These findings suggest that: (1) economics of scale are operative within school jurisdictions that have large numbers of senior high students; (2) the transportation allowances provided under the School Foundation Program Regulation may not be sufficient to cover essential expenditures for conveyance of pupils; and, (3) further fiscal equalization may need to be provided under the Supplementary Requisition Equalization Grant entitlements found in the School Grant Regulations.

SUMMARY OF CHAPTER 7

The results of this study indicate that the DPI's representative of the total instructional time provided in each of the major subject areas, grades one through twelve, varied substantially among Alberta school jurisdictions along four major dimensions. First, in the total amount of instructional time which generally was provided in each of the major subject areas, grades one through twelve. It was noted that the greatest proportion of total instructional program was devoted to the study of language arts (24.5 percent) while the least was devoted to the study of general industrial education (2.2 percent). Second, in the amount of variation found in the DPI for each of the major subject areas which could be accounted for in terms of the set of predictor variables examined in the study. The amount of explained variation for each of the DPI's ranged from approximately 39.1 percent for personal development to 71.2 percent for social studies. Third, in the nature of the predictor which was found to account for the greatest proportion of variance noted in each of the DPI's. Jurisdiction type was found to be the most important single predictor of variance accounted for in the DPI for each of language arts, mathematics, business education, industrial education (general), home economics, personal development, and fine arts. Fourth, in the impact that certain measures (i.e., when the effects of other predictors were held constant) from each of the five broad categories of predictor variables had on various subject area DPI's. A total of 27 of the 32 predictor variables examined in the study entered one or more of the regression equations.

In summary, public school districts characterized by large senior high enrolments, low per pupil expenditures for transportation, and low

ratios of SGR grants received to total operational revenue, were able to provide more extensive curricular programs in grades one through twelve.

Chapter 8

SUMMARY, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This final chapter contains a review of the study reported in earlier chapters. The review is organized in four sections. The first section summarizes the purpose of the study, problem statements examined, and the research design. The second section outlines the major findings and conclusions of the study. The third section contains implications of the study for future development of policy in educational finance. The final section makes suggestions for further research.

REVIEW OF THE PROBLEM AND RESEARCH DESIGN

Statement of the Problem

The purpose of this study was to describe the relationship between the major curricular programs provided in Alberta school systems and selected measures of demographic, wealth, fiscal effort, revenue and expenditure related variables. More specifically, this study sought to describe the extent to which any of the variation found in the amount of scheduled instruction time in major subject areas provided in public and separate school jurisdictions could be accounted for in terms of thirty-two predictor variables which were delineated for examination in the study. To complete the study, the research problem was subdivided into four distinct parts as outlined below:

Problem 1: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the elementary level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Problem 2: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the junior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Problem 3: To what extent may the variance of DPI's for the total instructional time provided in major subject areas and grades at the senior high level be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Problem 4: To what extent may the variance of DPI's for the total instructional time provided in major subject areas, grades one through twelve, be accounted for by selected measures of demographic, wealth, fiscal effort, revenue and expenditure variables?

Research Design

This study was designed as a first step in providing each of the following:

1. A means by which existing curricular program levels in Alberta school systems could be described for comparative purposes;

2. Provision of base line information concerning the nature and extent of variation found in program levels across the province for the 1978-79 school year; and,
3. Identification of factors considered relevant to the development of a more comprehensive approach to funding basic education (i.e., grades one through twelve) programs in the province.

Conceptualization of the District Program Index. To complete the study, a District Program Index (DPI) was developed as a means to describe school curricular program offerings in selected major subject areas at each grade level on a district-wide basis. Calculation of the DPI took into consideration two factors: (1) the amount of scheduled instructional time in school courses offered in designated major subject areas at each grade level; and, (2) the grade enrolment of individual schools within each district. The DPI was expressed in credit-equivalent units where one credit represented 25 hours of scheduled instructional time per year. In its most general form, a DPI at an individual grade level for a particular major subject area may be expressed as follows:

$$DPI = \frac{\sum_{s=1}^n \sum_{c=1}^m T_{sc} E_s}{\sum_{s=1}^n E_s}$$

where E_s = enrolment for grade under consideration
in school s
 T_{sc} = scheduled instruction time for course c
in school s
 n = number of schools in district
 m = number of courses in subject area

In summary, the DPI was conceptualized as a means by which the total amount of scheduled instructional time provided in designated sub-

ject areas for each grade at the school level could be quantified on a district-wide basis taking into consideration the number of students who had access to the program. The major strength of the DPI is that it is additive, i.e., individual subject area DPI's may be added together at particular grade levels or across grade levels. The major limitation of the DPI is that it has a school enrolment bias. While the DPI reflects general student access to curricular program availability on a district basis, it does not account for actual participation rates in individual courses within a given subject area.

Analysis of the Data. The data used in the study were drawn from records maintained by the Alberta Department of Education based on information supplied by public and separate school jurisdictions. Financial records used covered the 1977 and 1978 fiscal years, and the school program information used covered the 1978 to 1979 school year.

The study was conducted in three distinct phases. The first phase of the study consisted of calculating the DPI for each major subject area at each grade level for all public and separate school districts which had operating schools during the 1978 to 1979 school year. Regional school districts and private school authorities were excluded from the study. The second phase of the study consisted of determining district values for each of the 32 predictor variables detailed in Chapter 3. The final phase of the study consisted of using a stepwise multiple regression procedure outlined in the SPSS Manual (1975:353) to determine the extent to which the variation found in selected DPI's could be accounted for in terms of the predictor variables examined in the study.

SUMMARY OF FINDINGS AND CONCLUSIONS

The findings of the study show that compared to the average amount of instructional time provided in major subject areas at each of the senior high grade levels, 48.3 percent of that amount was provided at each of the elementary grade levels, and 64.2 percent of that amount was provided at each of the junior high grade levels. As Tables 8.1 and 8.2 indicate, substantially more variation was found in DPI's at the senior high level than was found in those at the elementary and junior high levels. The findings related to each of the four problem statements addressed in this study are outlined below.

Findings Related to Problem One

Elementary Program Levels. Generally, the greatest proportion of the instructional program provided at the elementary level was devoted to the study of language arts (41.1 percent), followed by mathematics (15.4 percent), personal development (11.4 percent), social studies (9.5 percent), fine arts (8.9 percent), science (7.2 percent), second languages (1.7 percent), and other subjects (4.8 percent). While there appeared to be appreciable variation in the DPI for the total instructional time provided in each of the major subject areas at the elementary level, there was not any substantial variation noted in the DPI for the total instructional time provided at each of the grade levels.

Related Program Factors. As Table 8.3 indicates, the DPI for the total instructional time provided in a number of elementary subject areas and grade levels tended to be higher when each of the following was evident:

1. the urban pupil ratio was low;
2. the school building utilization ratio was high;
3. the jurisdiction was a public school district;

Table 8.1

Proportion of the Variation Accounted for in DPI's for the Total Instructional Time Provided in Major Subject Areas at Various Divisional Levels and Grades One Through Twelve

Major Subject Areas	Elementary			Junior High			Senior High			All Grades		
	DPI		%	DPI		%	DPI		%	DPI		%
	$\bar{X}$	S.D.	V.A.F. ^a	$\bar{X}$	S.D.	V.A.F.	$\bar{X}$	S.D.	V.A.F.	$\bar{X}$	S.D.	V.A.F.
Language Arts	94.0	11.1	25.4	32.4	7.1	13.8	24.8	14.6	62.9	151.2	23.9	57.5
Mathematics	35.2	4.1	20.6	19.4	3.6	7.1	27.1	16.8	60.9	81.6	19.2	58.6
Social Studies	22.8	4.2	27.7	24.0	5.8	41.3	20.8	12.7	66.6	66.6	14.22	71.2
Science	16.4	3.7	32.1	20.8	6.7	21.2	26.3	15.4	70.5	63.4	19.1	64.3
Personal Development	26.3	5.3	26.5	20.6	5.8	28.1	10.5	6.8	55.1	57.4	11.1	39.1
Fine Arts	20.3	3.2	35.0	15.1	10.0	33.0	17.7	19.0	42.9	53.1	27.4	44.4
Second Languages	3.9	6.3	33.9	6.8	6.1	41.1	13.2	11.6	42.5	23.8	16.0	46.4
Business Education	-	-	-	1.9	2.2	19.9	33.0	23.0	60.3	35.0	22.9	56.7
Home Economics	-	-	-	5.4	4.1	43.0	11.7	12.0	44.8	17.1	14.3	47.9
Industrial Ed. (Gen.)	-	-	-	4.9	3.8	34.7	8.5	8.9	37.0	13.4	11.1	40.7
Industrial Ed. (Voc.)	-	-	-	-	-	-	27.2	66.5	46.7	27.2	66.5	46.7
Other Subjects	10.9	11.2	49.8	0.7	1.3	19.0	15.8	11.4	37.8	27.4	13.7	39.2
Total Program	228.7	13.7	30.9	151.8	27.0	38.1	236.5	175.6	56.5	617.0	191.0	55.2

^a % V.A.F. denotes percentage variation accounted for

Table 8.2

Proportion of the Variation Accounted for in the DPI's for the Total Instructional Time Provided in Major Subject Areas at Individual Grade and Divisional Levels

Grade Level	DPI		% V.A.F. ^a
	$\bar{X}$	S.D.	
1	37.0	3.2	30.9
2	38.2	2.3	31.3
3	38.2	2.4	24.1
4	38.3	2.6	27.1
5	38.4	2.5	31.6
6	38.6	2.6	26.2
Elementary	228.7	13.7	30.9
7	49.6	9.3	33.1
8	50.5	9.5	32.9
9	51.8	10.7	41.1
Junior High	151.8	27.0	38.1
10	71.7	45.9	59.2
11	86.5	67.7	53.5
12	78.3	65.9	50.7
Senior High	236.5	175.6	56.5
All Grades	617.0	191.0	55.2

^a % V.A.F. denotes percentage variation accounted for.

Table 8.3

A Summary of the Effects of Various Predictor Variables on the DPI's for the Total Instructional Time Provided in Major Subject Areas and Grades at the Elementary Level

Predictors ^a	Lang. Arts	Math	Soc. Stud.	Science	Pers. Dev.	Fine Arts	Sec. Lang.	Grade						Total Elem.
								1	2	3	4	5	6	
Demographic Characteristics														
Sparsity of pupil population				-	-	+		-	-	-	-	-	-	-
Urban pupil ratio				-	-	-		-	-	-	-	-	-	-
Elementary enrolment			-											
Junior high enrolment														
Senior high enrolment			+											
Total enrolment					-		+	+	+	+	+	+	+	+
School building utilization ratio														
Region														
1		+		+	+		+	-						-
2				+	+									
3				+	+									
4	+			+	+									
5	+			+	+									
6			-	+	+			-						-
7			-				-							
Jurisdiction type														
Public	+	+	+					+	+	+	+	+	+	+
Separate														
Health														
Amount of equalized assessment per pupil	-						+							-
Unsupported debt mill rate			+	+		-		-	-	-	-	-	-	-
Financial effort														
Net supplementary requisition mill rate		-				+	-		-	-	+			
Ratio of supplementary requisition to total operational revenue						+	-		-	-				
Amount of supplementary requisition levied per pupil						-		-	-	-				-
Revenue														
Ratio of SPPF to total operational revenue				+		+	-		+	+				-
Ratio of SGP to total operational revenue			-			-		-						
Total operational revenue per pupil														
Total SPPF per pupil		-		-										
Total SGP per pupil							+							
Expenditure (per pupil)														
Elementary instruction			+											
Junior high instruction			-				+	-						
Senior high instruction						+			+	+	+	+	+	+
Administration														
Operation and maintenance		-				+								
Transportation	+						-	+	-	+	-	+	-	-
Total operational														

^a Effects of predictors indicated as follows: (1) negative by minus sign (-)
(2) positive by plus sign (+)

4. the unsupported debt mill rate was low;
5. the amount of supplementary requisition levied per pupil was low;
6. the per pupil expenditure for administration was high; and,
7. the per pupil expenditure for transportation was low.

Overall Elementary DPI. The DPI for the total instructional time provided at the elementary level had a mean of 228.7 credit-equivalent units and a standard deviation of 13.7. While only 30.9 percent of the variation noted in the overall DPI could be accounted for in terms of 11 predictor variables examined in the study, two of these predictors in combination explained 14.5 percent of the variance found. These were jurisdiction type, and the amount of supplementary requisition levied per pupil. In general, public school districts which had a low supplementary requisition on a per pupil basis tended to provide more extensive curricular offerings at the elementary level.

Findings Related to Problem Two

Junior High Program Levels. The findings of the study indicate that, generally, the greatest proportion of the instructional program at the junior high level was devoted to language arts (21.1 percent), followed by social studies (15.8 percent), science (13.7 percent), personal development (13.6 percent), mathematics (12.8 percent), fine arts (10.0 percent), second languages (4.5 percent), home economics (3.5 percent), general industrial education (3.2 percent), business education (1.3 percent), and other subjects (0.4 percent). Generally, a substantial degree of variation was found in the DPI for the instructional time provided in each of the major subject areas. An appreciable variation in the DPI for the instructional time provided at each of the grade levels was found as well.

Related Program Factors. As Table 8.4 shows, the DPI for the total instructional time provided in a number of junior high subject areas and grade levels tended to be higher when each of the following was evident:

1. the jurisdiction was located in Region 2;
2. the jurisdiction was a public school district;
3. the amount of equalized assessment per pupil was high;
4. the ratio of SGR grants to total operational revenue was low; and,
5. the per pupil expenditure for transportation was low.

Overall Junior High DPI. The DPI for the total instructional time provided at the junior high level had a mean of 151.8 credit-equivalent units and a standard deviation of 27.0. While only 38.1 percent of the variation noted in the overall DPI could be accounted for in terms of six of the predictor variables examined in the study, three of these predictors in combination explained 29.5 percent of the variation present. These were jurisdiction type, ratio of SGR grants received to total operational revenue, and per pupil expenditure for transportation. In general, public school districts characterized by a low ratio of SGR grants to total operational revenue, and low per pupil expenditures for transportation were able to provide more extensive curricular offerings at the junior high level.

Findings Related to Problem Three

Senior High Program Levels. Generally, the greatest proportion of the instructional program at the senior high level was devoted to business education (14.0 percent), followed by industrial education (vocational--11.5 percent), mathematics (11.4 percent), science (11.1 percent), language arts (10.5 percent), social studies (8.8 percent), fine arts (7.5 percent), second languages (5.6 percent), home economics (5.0 percent), personal

Table 8.4

A Summary of the Effects of Various Predictor Variables on DPI's for the Total Instructional Time Provided in Major Subject Areas and Grades at the Junior High Level

Predictors ^a	Lang. Arts	Math	Soc. Stud.	Science	Pers. Dev.	Fine Arts	Sec. Lang.	Bus. Ed.	N.Ec.	I.A. Gen.	Grade		Total J.H.S.
											7	8	9
Demographic Characteristics													
Sparsity of pupil population					-					-	-		
Urban pupil ratio			+				+						+
Elementary enrolment													
Junior high enrolment													
Senior high enrolment													
Total enrolment													
School building utilization ratio			+										
Region													
1			+		+		+						
2			+		+								
3				+							+		+
4			-				+						
5					+			+					
6													
7													
Jurisdiction type													
Public		+				+			+	+	+		+
Separate													
Wealth													
Amount of equalized assessment per pupil													
Unsupported debt mill rate					+		+			+		+	+
Fiscal Effort													
Net supplementary requisition mill rate													
Ratio of supplementary requisition to total operational revenue			+							+			
Amount of supplementary requisition levied per pupil					+								
Revenue													
Ratio of STFF to total operational revenue				+									
Ratio of SGR to total operational revenue	-			-					+	+			
Total operational revenue per pupil					-					+	+		
Total SPPF per pupil													
Total SGR per pupil													
Expenditure (per pupil)							+						
Elementary instruction													
Junior high instruction										+			
Senior high instruction			-							+			
Administration													
Operation and maintenance			-		+			+					
Transportation													
Total operational				+						+		+	

^a Effects of predictors indicated as follows: (1) negative by minus sign (-) (2) positive by plus sign (+)

development (4.4 percent), industrial education (general--3.6 percent), and other subjects (6.7 percent). A substantial amount of variation was found in the DPI for the instructional time provided in each of the major subject areas. An appreciable variation in the DPI for the instructional time allocated at each of the grade levels was noted also.

Related Program Factors. As Table 8.5 reveals, the DPI for the total instructional time provided in a number of senior high subject areas and grade levels tended to be higher when each of the following was evident:

1. the urban pupil ratio was high;
2. the senior high enrolment was high in proportion to the junior high enrolment;
3. the school building utilization ratio was high;
4. the jurisdiction was a public school district;
5. the net supplementary requisition mill rate was high;
6. the ratio of SFPPF grants to total operational revenue was high;
7. the ratio of SGR grants to total operational revenue was low;
8. the total SFPPF grants received per pupil was high;
9. the per pupil expenditure for senior high instruction was low;
10. the per pupil expenditure for transportation was low; and,
11. the total operational expenditure per pupil was low.

Overall Senior High DPI. The DPI for the total instructional time offered at the senior high level had a mean of 236.5 credit-equivalent units and a standard deviation of 175.6. A total of 56.5 percent of the variation found in the overall DPI could be accounted for in terms of nine predictor variables examined in the study. Five of these predictors in combination explained 51.0 percent of the variation noted. These were jurisdiction type, senior high enrolment, junior high enrolment, per pupil

Table 8.5

A Summary of the Effects of Various Predictor Variables on DFI's for the Total Instructional Time Provided in Major Subject Areas and Grades at the Senior High Level

Predictors ^a	Lang. Arts	Math	Soc. Stud.	Science	Pers. Dev.	Fine Arts	Sec. Lang.	Bus. Ed.	H.Ec.	I.A. Gen.	I.A. Voc.	Grade			Total S.H.S.
												10	11	12	
Demographic Characteristics															
Sparsity of pupil population					+		+		+	+					
Urban pupil ratio					+		+		+	+					
Elementary enrolment					-		-		-	-					
Junior high enrolment			+	+	+		+		+	+					
Senior high enrolment															
Total enrolment	+		+	+	+		+		+	+					
School building utilization ratio	+	+	+	+	+		+		+	+					
Region															
1	-	-	-	-	-										
2															
3															
4															
5															
6															
7															
Jurisdiction type															
Public	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Separate															
Health															
Amount of equalized assessment per pupil															
Unsupported debt mill rate															
Fiscal Effort															
Net supplementary requisition mill rate															
Ratio of supplementary requisition to total operational revenue	+	+	+	+	+		+								
Amount of supplementary requisition levied per pupil															
Revenue															
Ratio of SPP to total operational revenue			+	+	+		+								
Ratio of SRR to total operational revenue		-													
Total operational revenue per pupil															
Total SPP per pupil	+	+	+	+	+										
Total SGR per pupil															
Expenditure (per pupil)															
Elementary instruction															
Junior high instruction															
Senior high instruction															
Administration															
Operation and maintenance															
Transportation															
Total operational															

^a Effects of predictors indicated as follows: (1) negative by minus sign (-)
(2) positive by plus sign (+)

expenditure for transportation, and ratio of SGR grants received to total operational revenue. In general, public school districts characterized by a high proportion of senior high pupils, a low proportion of junior high pupils, a low per pupil expenditure for transportation, and a low ratio of SGR grants to total operational revenue were able to provide more extensive curricular program offerings at the senior high level.

Findings Related to Problem Four

Total Program Offering in Grades One through Twelve. In grades one through twelve, the greatest proportion of the instructional program was generally devoted to language arts (24.5 percent), followed by mathematics (13.2 percent), social studies (10.8 percent), science (10.3 percent), personal development (9.3 percent), fine arts (8.6 percent), business education (5.7 percent), vocational education (4.4 percent), second languages (3.9 percent), home economics (2.8 percent), general industrial education (2.2 percent), and other subjects (4.8 percent). As Table 8.1 indicates, a substantial degree of variation was found in the DPI for the instructional time provided in each of the major subject areas.

Related Program Factors. As Table 8.6 indicates, the DPI for the total instructional time provided in a number of subject areas, grades one through twelve, tended to be higher when each of the following was evident:

1. the senior high enrolment was high in proportion to the junior high enrolment;
2. the school building utilization ratio was high;
3. the ratio of SFPF grants to total operational revenue was high;
4. the ratio of SGR grants to total operational revenue was low;
5. the per pupil expenditure for senior high instruction was low;

Table 8.6

A Summary of the Effects of Various Predictor Variables on the DPI's for the
Total Instructional Time Provided in Major Subject Areas
Grades One through Twelve

Predictors ^a	Effects of predictors indicated as follows:											
	Lang. Arts	Math	Soc. Stud.	Science	Pers. Dev.	Fine Arts	Sec. Lang.	Bus. Ed.	H.Ec.	I.A. Gen.	I.A. Voc.	All Subjects
Demographic Characteristics												
Sparsity of pupil population										+		
Urban pupil ratio			+						+			
Elementary enrollment									+			
Junior high enrollment		-					-				+	-
Senior high enrollment		+					+		+			+
Total enrollment												
School building utilization ratio	+	+	+	+			-	+				+
Region												
1												
2												
3			+	-			+					
4						+	+					
5										-		
6										-		
7												
Jurisdiction type												
Public	+	+	+	+	+	+	+	+	+	+	+	+
Separate												
Health												
Amount of equalized assessment per pupil												
Unsupported debt mill rate	-											
Fiscal effort										+		
Net supplementary requisition mill rate			+	+				+				
Ratio of supplementary requisition to total operational revenue												
Amount of supplementary requisition levied per pupil	-		-	-			-					
Revenue												
Ratio of SFPF to total operational revenue	+	+		+			+	+				
Ratio of SGR to total operational revenue	-	-		-						-		-
Total operational revenue per pupil	+											
Total SFPF per pupil			+	+								
Total SGR per pupil		+	-						+			+
Expenditure (per pupil)												
Elementary instruction												
Junior high instruction	-		-	-						+		
Senior high instruction	-	-	-	-		+						
Administration												
Operation and maintenance												
Transportation	+	-	+	-			-					
Total operational	-		+	+	+	-	+	+		-	-	-

^a Effects of predictors indicated as follows: (1) negative by minus sign (-)
(2) positive by plus sign (+)

6. the per pupil expenditure for transportation was low; and,
7. the total operational expenditure per pupil was high.

Overall DPI for Grades One through Twelve. The DPI for the total instructional time provided in grades one through twelve had a mean of 617.0 credit-equivalent units and a standard deviation of 191.0. A total of 55.2 percent of the variation found in the overall DPI could be accounted for in terms of seven predictor variables examined in the study. Four of these predictor variables in combination explained 49.1 percent of the variance noted. These were jurisdiction type, senior high enrolment, per pupil expenditure for transportation, and ratio of SGR grants received to total operational revenue. In general, public school districts characterized by a large number of senior high pupils, low per pupil expenditure for transportation, and a low ratio of SGR grants to total operational revenue were able to provide a more extensive curricular program offering in grades one through twelve.

IMPLICATIONS OF THE STUDY

This study was directed at the development of a suitable means by which district curricular program levels could be described. Its purpose was to examine the extent to which any of the variation found in district curricular program offerings could be accounted for in terms of a selected number of measures of fiscal and non-fiscal variables. The major implications of the study for future policy development in educational finance are outlined below.

Monitoring Changes in District Program Levels

A major concern in the development and study of school finance plans has been the provision of equal educational opportunity. To a large extent, the principle of fiscal equalization (i.e., fiscal neutrality) has been applied as a first approximation of student access to programs and services. Equal access to education has been taken to mean that students must be provided with a minimum level of resources, usually termed a foundation level, to ensure equality of educational opportunity. However, as Garms et al. (1978:89) point out, the major difficulty has been "that there is no way of knowing how much education is minimally necessary."

Up to the present time, no studies have been found in which an attempt was made to describe the nature and extent of variation in major curricular programs offered, grades one through twelve, among local school districts. A major contribution of this study was the development of a District Program Index (DPI) which could be applied on a province-wide basis to monitor changes in district program levels from year to year.

Explaining Variation in District Program Levels

Another major implication of the present study was the application of a statistical procedure (i.e., multiple linear regression analysis) useful

in determining which individual measures, from a set of fiscal and non-fiscal variables, in combination tend to account for the greatest amount of variance found in particular district program offerings. Use of this technique could provide a central funding authority with information concerning the influence of certain factors within and outside the control of government, at both provincial and local levels, on district program levels. Generally, the findings of this study show that four factors accounted for approximately one-half of the variance noted in the total instructional time provided in major subject areas, grades one through twelve. These were jurisdiction type, senior high enrolment, per pupil expenditure for transportation, and ratio of SGR grants received to total operational revenue. The implications of each of these factors for school finance in Alberta are discussed below.

Jurisdiction Type. In general, public school districts provided more extensive curricular program offerings at each grade level than did separate school districts. From the data analyzed in this study, it was apparent that, generally, separate school districts have a smaller number of students as well as a smaller local property taxation base. Recognizing that separate school districts exist within the provincial educational system and receive grant entitlements the same as public school districts, further consideration needs to be given to special means to counteract the negative effects associated with low enrolments and low taxation bases. An initial point of discussion on this provincial policy matter might centre on consolidation and expansion of boundaries for separate school districts. This suggestion is put forth with the caveat that should substantial additional funding be made available to smaller jurisdictions, it be applied equally to both public and separate school jurisdictions.

Senior High Enrolment. The number of senior high students appears to have a significant impact on the overall DPI for a school jurisdiction. Generally, districts with a large number of senior high students were able to provide more extensive curricular program offerings in grades one through twelve. Under the Alberta School Foundation Program, a large proportion of general-purpose grants are paid on a weighted per pupil basis for each elementary, junior high, and senior high pupil. The findings of this study would suggest that if curricular program disparities are to be reduced additional funding needs to be made available for senior high students where enrolments tend to be low.

Transportation Allowances. The findings of the study generally indicate that where per pupil expenditure for transportation was low, the overall DPI's at all divisional levels tended to be higher. This would suggest that additional allowances paid for transportation require further consideration should greater equalization of curricular program levels among districts be desired.

SGR Grants Provided. The results of this study show that the overall DPI for grades one through twelve, as well as the DPI's for several subject areas at each of the divisional levels, tended to be higher if the ratio of SGR grants received to total operational revenue was low. In 1978, the average ratio of SGR grants to SFPPF grants collected by local school jurisdictions was 1:13. Since compensatory components of the SGR grants (i.e., provisions for equalizing supplementary requisitions and declining enrolments) were not isolated for examination in the study, it is suggested that a separate analysis be made of their effects on district program levels. Nearly 25 percent of the total SGR grants paid in 1978 were of a compensatory nature.

Reclassifying the Provincial Grant Structure

As a final observation, it is suggested that consideration be given to reclassifying the total provincial grant structure into three major components: (1) a set of general-purpose grants, (2) a set of special-purpose or categorical grants, and (3) a set of compensatory grants. This may have the effect of presenting a clearer picture of the provincial grants-in-aid program in force from year to year and for comparisons to be made in studies of the impact of the finance program in place.

SUGGESTIONS FOR FURTHER RESEARCH

As a consequence of the present study, the following suggestions are put forth for further research:

1. While fiscal equalization remains a desirable objective, it is doubtful that its achievement necessarily removes interdistrict disparities with regard to curricular programs offered. In fact, a movement toward further equalization of district program levels could result in more noted incidences of fiscal inequality. This anomaly should be more fully explored to study its implications.

2. If the findings from a study of this nature are to be used as a basis for policy decisions, then time series analyses should be undertaken to assess the impact of any policy changes made.

3. The present study did not include consideration of specialized programs provided at the local level for learning disabled, handicapped and disadvantaged students. As the resources necessary to implement such programs have direct bearing on available district revenues, further study should be made of the impact of these programs on major curricular programs offered to regular students.

4. One impediment to extended research in school finance is the unavailability of an appropriate data base from which needed information may be drawn. In this regard, further study should be made of means to regularize the reporting function of school jurisdictions to the Alberta Department of Education with regard to programs and services provided to elementary and secondary students.

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APPENDIX A

CALCULATION OF THE DISTRICT PROGRAM INDEX (DPI)

In its most general form, a DPI may be expressed in mathematical terms as follows:

$$\text{DPI} = \frac{\sum_{s=1}^n \sum_{c=1}^m T_{sc} E_s}{\sum_{s=1}^n E_s}$$

where E_s = enrolment for grade under consideration in school s
 T_{sc} = scheduled instructional time for course c in school s
 n = number of schools in district
 m = number of courses in subject area

To illustrate the calculation of the DPI, the following example is provided:

A school district offers the following program in language arts at the grade ten level in each of its two schools:

Total Grade 10			
School	Enrolment	Course	Credit Value
A	100	English 10	5
B	400	English 10	5
		English 13	5
		Reading 10	3

The DPI for language arts at the grade ten level is calculated as follows:

$$\begin{aligned} \text{DPI} &= \frac{(5 \times 100) + [(5 + 5 + 3)(400)]}{(100 + 400)} \\ &= \frac{500 + 13(400)}{500} \\ &= \frac{500 + 5200}{500} \\ &= 11.4 \text{ credit equivalent units} \end{aligned}$$

VARIABLE	MEAN	STANDARD DEV	CASES
C7	94.0057	11.0872	121
C23	35.1623	4.1341	121
C39	21.7955	4.1708	121
C55	16.3672	3.7158	121
C71	26.2699	5.3439	121
C87	20.2775	3.1866	121
C103	3.8951	6.2896	121
C151	10.9017	11.2480	121
P1	1605.3203	2147.6591	121
P2	0.6875	0.3361	121
P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
P9	0.1423	0.0660	121
P10	1799.0715	322.9920	121
P11	1020.9367	162.3686	121
P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
P14	108.2411	42.4952	121
P15	204.4040	71.6511	121
P16	132.3645	140.7312	121
P17	1760.2280	319.1153	121
P18	1229.9061	240.4994	121
P19	181.0687	119.0130	121
P20	266.9163	164.8212	121
P21	1541.4380	4533.2713	121
P22	862.5372	2504.0471	121
P23	773.9917	2511.1787	121
P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
R3	0.2066	0.4066	121
R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

VARIABLE	MEAN	STANDARD DEV	CASES
C11	32.3716	7.1224	121
C27	19.3893	3.5690	121
C43	23.9553	5.8370	121
C59	20.7473	6.7115	121
C75	20.5865	5.7694	121
C91	15.1351	10.0401	121
C107	6.7901	6.0543	121
C116	1.9158	2.2058	121
C125	5.3520	4.0570	121
C134	4.8894	3.8375	121
C155	0.6610	1.3277	121
P1	1605.3203	2147.6591	121
P2	0.6875	0.3361	121
P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
P9	0.1423	0.0660	121
P10	1799.0715	322.9920	121
P11	1020.9367	162.3686	121
P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
P14	108.2411	42.4952	121
P15	204.4040	71.6511	121
P16	132.3645	140.7312	121
P17	1760.2280	319.1153	121
P18	1229.9061	240.4994	121
P19	181.0687	119.0130	121
P20	266.9163	164.8212	121
P21	1541.4380	4533.2713	121
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P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
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R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

VARIABLE	MEAN	STANDARD DEV	CASES
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C32	81.6440	19.1796	121
C48	66.5632	14.2191	121
C64	63.3965	19.0922	121
C80	57.3623	11.1370	121
C96	53.1263	27.3881	121
C112	23.8433	15.9639	121
C121	34.9489	22.8941	121
C130	17.0731	14.3324	121
C139	13.3642	11.1337	121
C144	27.1575	66.5260	121
C160	27.3723	13.7362	121
P1	1605.3203	2147.6591	121
P2	0.6875	0.3361	121
P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
P9	0.1423	0.0660	121
P10	1799.0715	322.9920	121
P11	1020.9367	162.3686	121
P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
P14	108.2411	42.4952	121
P15	204.4040	71.6511	121
P16	132.3645	140.7312	121
P17	1760.2280	319.1153	121
P18	1229.9061	240.4994	121
P19	181.0687	119.0130	121
P20	266.9163	164.8212	121
P21	1541.4380	4533.2713	121
P22	862.5372	2504.0471	121
P23	773.9917	2511.1787	121
P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
R3	0.2066	0.4066	121
R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC- =1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

VARIABLE	MEAN	STANDARD DEV	CASES
C15	24.7740	14.5639	121
C31	27.0924	16.7790	121
C47	20.8124	12.7140	121
C63	26.2820	15.3916	121
C79	10.5059	6.7924	121
C95	17.7137	18.9463	121
C111	13.1582	11.5668	121
C120	33.0331	22.9458	121
C129	11.7211	12.0317	121
C138	8.4748	8.8452	121
C143	27.1575	66.5260	121
C159	15.8096	11.3519	121
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P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
P9	0.1423	0.0660	121
P10	1799.0715	322.9920	121
P11	1020.9367	162.3686	121
P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
P14	108.2411	42.4952	121
P15	204.4040	71.6511	121
P16	132.3645	140.7312	121
P17	1760.2280	319.1153	121
P18	1229.9061	240.4994	121
P19	181.0687	119.0130	121
P20	266.9163	164.8212	121
P21	1541.4380	4533.2713	121
P22	862.5372	2504.0471	121
P23	773.9917	2511.1787	121
P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
R3	0.2066	0.4066	121
R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

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ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
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C163	38.1588	2.4200	121
C164	38.3093	2.5467	121
C165	38.4383	2.5057	121
C166	38.6184	2.5551	121
C167	228.6748	13.6985	121
C168	49.5563	9.3402	121
C169	50.4741	9.4669	121
C170	51.7629	10.6618	121
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P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
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P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
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P18	1229.9061	240.4994	121
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P23	773.9917	2511.1787	121
P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
R3	0.2066	0.4066	121
R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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C172	71.7205	45.8781	121
C173	86.4907	67.7005	121
C174	78.3234	65.9415	121
C175	236.5345	175.5591	121
C176	617.0025	191.0194	121
P1	1605.3203	2147.6591	121
P2	0.6875	0.3361	121
P3	0.7057	0.1676	120
P4	11684.8639	6695.4526	121
P5	25.2781	5.6158	121
P6	2.4364	5.0700	121
P7	0.6842	0.0896	121
P8	0.1001	0.0569	121
P9	0.1423	0.0660	121
P10	1799.0715	322.9920	121
P11	1020.9367	162.3686	121
P12	1113.0333	174.7885	121
P13	1760.2729	4109.4379	94
P14	108.2411	42.4952	121
P15	204.4040	71.6511	121
P16	132.3645	140.7312	121
P17	1760.2280	319.1153	121
P18	1229.9061	240.4994	121
P19	181.0687	119.0130	121
P20	266.9163	164.8212	121
P21	1541.4380	4533.2713	121
P22	862.5372	2504.0471	121
P23	773.9917	2511.1787	121
P24	3177.9669	9534.5266	121
JUR	0.3388	0.4753	121
R1	0.1818	0.3873	121
R2	0.1488	0.3573	121
R3	0.2066	0.4066	121
R4	0.1570	0.3653	121
R5	0.0992	0.3001	121
R6	0.1818	0.3873	121
R7	0.0248	0.1561	121

APPENDIX B

*****MULTIPLE REGRESSION*****
DEPENDENT VARIABLE..C7

VARIABLE LIST
1
REGRESSION LIST
1

VARIABLE(S) ENTERED ON STEP NUMBER 7..P19

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE		REGRESSION	DF	2868.13047		409.73292		4.12589		0.0006	
ADJUSTED R SQUARE		RESIDUAL	85.	8441.16338		99.30780					
STANDARD ERROR	9.96533										

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-7.964470	-0.34142	2.78015	8.207	P1	0.03643	0.03474	0.67875	0.102
P12	-0.5257692E-02	-0.08289	0.00684	0.590	P2	0.00426	0.00379	0.59080	0.001
R5	7.019444	0.19002	3.77402	3.459	P3	0.03886	0.03924	0.76132	0.130
R3	4.812264	0.17646	2.82617	2.899	P5	0.01537	0.01719	0.93311	0.025
P4	-0.3485629E-03	-0.21049	0.00022	2.450	P6	-0.09360	-0.08385	0.59911	0.595
P15	0.3314129E-01	0.21417	0.02116	2.452	P7	0.04238	0.03765	0.58898	0.119
P19	-0.1411604E-01	-0.15152	0.01186	1.416	P8	-0.04307	-0.01064	0.04555	0.010
(CONSTANT)	100.7207				P9	-0.02096	-0.01223	0.25424	0.013
					P10	0.01696	0.00983	0.25078	0.008
					P11	0.06924	0.06910	0.74329	0.403
					P13	0.03003	0.03185	0.83937	0.085
					P14	0.02324	0.02285	0.72149	0.044
					P16	-0.04426	-0.03704	0.52293	0.115
					P17	0.01062	0.00632	0.26409	0.003
					P18	0.07707	0.07065	0.62724	0.421
					P20	-0.01788	-0.00950	0.21080	0.008
					P21	0.06921	0.07619	0.90450	0.491
					P22	0.06604	0.07257	0.90121	0.445
					P23	0.06128	0.06723	0.89856	0.381
					P24	0.06641	0.07300	0.90201	0.450
					R1	-0.04346	-0.04241	0.71069	0.151
					R2	0.02555	0.02715	0.84264	0.062
					R4	-0.00829	-0.00896	0.87241	0.007
					R6	-0.01079	-0.01146	0.84212	0.011
					R7	0.07330	0.08100	0.91133	0.555

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC=-1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C7 . REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.40471	0.16379	0.16379	-0.40471	-8.776959	-0.37625
P12	0.42740	0.18267	0.01888	-0.14095	-0.3474427E-02	-0.05477
R5	0.45875	0.21046	0.02779	0.18119	7.567862	0.20487
R3	0.47278	0.22352	0.01307	0.13991	6.182041	0.22669
P4	0.48069	0.23106	0.00754	0.13425	-0.2052982E-03	-0.12398
P15	0.49110	0.24118	0.01012	0.23096	0.5137420E-01	0.33200
P19	0.50360	0.25361	0.01243	-0.15460	-0.4920895E-01	-0.52822
P6	0.50878	0.25886	0.00525	-0.05621	-0.4284105	-0.19590
P3	0.51500	0.26523	0.00637	0.01333	11.95792	0.18076
P18	0.52227	0.27276	0.00754	0.17921	0.8838882E-02	0.19173
P11	0.52876	0.27959	0.00682	0.08997	0.1250742E-01	0.18317
P20	0.53492	0.28614	0.00655	0.15565	-0.7724340E-02	-0.11483
P21	0.53943	0.29099	0.00485	0.08625	0.6659228E-02	2.72278
P24	0.54383	0.29575	0.00476	0.08072	-0.3254390E-02	-2.79863
R7	0.54689	0.29909	0.00334	0.02129	14.03823	0.19770
R4	0.54828	0.30061	0.00152	-0.05799	1.756059	0.05786
P14	0.54984	0.30232	0.00171	-0.13823	0.2819723E-01	0.10807
P5	0.55185	0.30454	0.00221	0.03046	0.1116523	0.05655
P8	0.55418	0.30712	0.00258	-0.21995	64.72611	0.33188
P13	0.55511	0.30815	0.00103	-0.07433	0.8979620E-04	0.03328
P16	0.55571	0.30881	0.00066	0.17926	-0.1677683E-01	-0.21295
P10	0.55807	0.31144	0.00263	0.13318	0.1144041E-01	0.33328
P1	0.56003	0.31363	0.00219	0.27204	0.3796987E-03	0.07355
R6	0.56115	0.31488	0.00125	-0.06077	1.003418	0.03505
P17	0.56210	0.31596	0.00107	0.12365	-0.8039573E-02	-0.23140
P2	0.56249	0.31640	0.00044	-0.27696	-2.077461	-0.06298
P9	0.56300	0.31697	0.00057	0.17639	-37.57091	-0.22356
P7	0.56319	0.31718	0.00021	0.05341	4.292712	0.03469
R1	0.56340	0.31742	0.00024	-0.15095	-0.7707456	-0.02692
(CONSTANT)					56.57191	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=O=PUBLIC--=1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C23
VARIABLE(S) ENTERED ON STEP NUMBER 5.. P5
MULTIPLE R 0.45373
R SQUARE 0.20587
ADJUSTED R SQUARE 0.16023
STANDARD ERROR 3.78843

ANALYSIS OF VARIANCE
REGRESSION 5.
RESIDUAL 87.
SUM OF SQUARES 323.69492
MEAN SQUARE 64.73898
F 4.51074
P 0.0011

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-2.423225	-0.27859	0.88193	7.549	P1	0.09165	0.08371	0.66247	0.607
R1	2.947792	0.27616	1.07841	7.472	P2	-0.09878	-0.08405	0.57494	0.612
P14	-0.2561823E-01	-0.26334	0.01045	6.009	P3	0.03523	0.03809	0.92795	0.125
P7	-8.094066	-0.17542	4.72431	2.935	P4	0.02792	0.02550	0.66217	0.056
P5	-0.9082841E-01	-0.12338	0.07235	1.576	P6	0.08022	0.08257	0.84121	0.590
(CONSTANT)	46.05466				P8	-0.01945	-0.01718	0.61914	0.025
					P9	0.10649	0.09475	0.62857	0.779
					P10	-0.06318	-0.05018	0.50090	0.217
					P11	-0.05396	-0.05490	0.82201	0.260
					P12	0.06517	0.07012	0.91920	0.425
					P13	0.02089	0.02212	0.89063	0.042
					P15	0.02963	0.02404	0.52291	0.050
					P16	-0.08210	-0.07011	0.57915	0.425
					P17	-0.00574	-0.00463	0.51620	0.002
					P18	-0.04756	-0.04093	0.58821	0.144
					P19	0.02495	0.02152	0.59105	0.040
					P20	-0.00003	-0.00003	0.62189	0.000
					P21	0.04147	0.04458	0.91776	0.171
					P22	0.03765	0.04051	0.91941	0.141
					P23	0.04283	0.04622	0.92489	0.184
					P24	0.04089	0.04401	0.91996	0.167
					R2	-0.08755	-0.09523	0.93959	0.787
					R3	-0.00393	-0.00425	0.93018	0.002
					R4	0.04771	0.05226	0.95288	0.236
					R5	0.02401	0.02625	0.94929	0.059
					R6	0.02141	0.02276	0.89756	0.045
					R7	-0.00007	-0.00007	0.95596	0.000

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C23 REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.26744	0.07152	0.07152	-0.26744	-0.8395161	-0.09652
R1	0.37089	0.13756	0.06604	0.18161	3.148387	0.29495
P14	0.41008	0.16817	0.03060	-0.19980	-0.2081098E-01	-0.21392
P7	0.43759	0.19148	0.02332	-0.12647	-4.799165	-0.10401
P5	0.45373	0.20587	0.01439	-0.05194	-0.1450086	-0.19698
R2	0.46160	0.21307	0.00720	-0.09948	-0.7820389E-01	-0.00676
P6	0.46897	0.21993	0.00686	0.16534	0.7268432E-01	0.08914
P1	0.47561	0.22620	0.00627	0.23951	0.3652748E-03	0.18976
P16	0.48840	0.23854	0.01234	0.04102	0.1373144E-02	0.04674
P9	0.50085	0.25085	0.01232	0.11005	52.14526	0.83217
P20	0.53173	0.28274	0.03189	0.04052	-0.1661220E-01	-0.66231
P17	0.54868	0.30105	0.01831	0.09745	0.1111699E-01	0.85814
P11	0.55934	0.31286	0.01181	0.06685	-0.3605560E-02	-0.14161
P12	0.56385	0.31793	0.00507	0.03857	0.3349000E-03	0.01416
P10	0.56752	0.32208	0.00415	0.07226	-0.8949498E-02	-0.69922
P2	0.57110	0.32616	0.00408	-0.23003	-2.690725	-0.21877
R7	0.57221	0.32743	0.00127	0.02710	-3.505909	-0.13242
P23	0.57853	0.33470	0.00727	0.11330	0.1103775E-01	6.70470
P22	0.59644	0.35574	0.02105	0.11452	-0.1949153E-01	-11.80619
P21	0.61360	0.37650	0.02076	0.12053	0.4834812E-02	5.30167
P15	0.61935	0.38360	0.00710	0.21875	-0.1606944E-01	-0.27851
P18	0.62464	0.39017	0.00658	-0.03311	-0.5298484E-02	-0.30824
P13	0.62635	0.39232	0.00214	-0.03639	0.9287127E-04	0.09232
P8	0.62723	0.39342	0.00110	-0.02001	-60.72577	-0.83508
P19	0.63545	0.40380	0.01038	0.05896	0.3175036E-01	0.91404
R5	0.63618	0.40473	0.00093	0.03408	0.5885477	0.04273
P4	0.63650	0.40513	0.00040	0.04215	-0.2878837E-04	-0.04662
R6	0.63667	0.40535	0.00022	-0.06511	0.1927362	0.01806
(CONSTANT)					52.96047	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C39
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P12
VARIABLE LIST 1
REGRESSION LIST 3

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.52625	REGRESSION	9.	443.20491	49.24499	3.53217	0.0010				
ADJUSTED R SQUARE	0.19853	RESIDUAL	83.	1157.17352	13.94185						
STANDARD ERROR	3.73388										

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-1.836516	-0.20928	0.97544	3.545	P1	0.03167	0.02954	0.62886	0.077
R6	-1.803096	-0.16744	1.03818	3.016	P2	-0.08039	-0.06778	0.51402	0.378
P23	0.4953021E-02	2.98216	0.00147	11.407	P3	-0.01722	-0.01537	0.57605	0.019
P21	-0.2320220E-02	-2.52187	0.00074	9.822	P4	0.01475	0.01262	0.52939	0.013
R7	-10.52661	-0.39408	6.17357	2.907	P5	-0.02997	-0.03374	0.91671	0.093
P6	0.1332501	0.16198	0.09230	2.084	P7	0.10381	0.10218	0.70055	0.865
P8	-10.77314	-0.14684	8.68499	1.539	P9	0.09010	0.06561	0.38342	0.355
P11	0.3663185E-02	0.14261	0.00264	1.930	P10	-0.01697	-0.01358	0.46316	0.015
P12	-0.2838914E-02	-0.11897	0.00242	1.380	P13	-0.06878	-0.07621	0.88784	0.479
(CONSTANT)	22.92316				P14	-0.02535	-0.02653	0.79175	0.055

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	0.03167	0.02954	0.62886	0.072
P2	-0.08039	-0.06778	0.51402	0.378
P3	-0.01722	-0.01537	0.57605	0.019
P4	0.01475	0.01262	0.52939	0.013
P5	-0.02997	-0.03374	0.91671	0.093
P7	0.10381	0.10218	0.70055	0.865
P9	0.09010	0.06561	0.38342	0.355
P10	-0.01697	-0.01358	0.46316	0.015
P13	-0.06878	-0.07621	0.88784	0.479
P14	-0.02535	-0.02653	0.79175	0.058
P15	-0.02715	-0.02388	0.55946	0.047
P16	-0.00395	-0.00354	0.58106	0.001
P17	-0.00230	-0.00176	0.42472	0.000
P18	0.04763	0.04579	0.66807	0.172
P19	0.32568	0.09302	0.05898	0.716
P20	0.02231	0.01713	0.42616	0.024
P22	2.63798	0.08646	0.00078	0.618
P24	10.04451	0.08646	0.00005	0.618
R1	0.01960	0.02046	0.78834	0.034
R2	-0.02122	-0.02404	0.92756	0.047
R3	-0.01434	-0.01540	0.83427	0.019
R4	0.00255	0.00279	0.87059	0.001
R5	0.01980	0.02158	0.85869	0.038

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C39
VARIABLE LIST 1
REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.33347	0.11120	0.11120	-0.33347	-0.8814939	-0.10045
R6	0.36542	0.13353	0.02233	-0.12716	-2.263378	-0.21018
P23	0.38971	0.15188	0.01834	0.19356	0.5200301E-02	3 13104
P21	0.44492	0.19795	0.04608	0.16851	-0.2460509E-02	-2.67436
R7	0.46783	0.21886	0.02091	0.09899	-11.92983	-0.44662
P6	0.48498	0.23521	0.01634	0.03095	0.8225689E-01	0.09999
P8	0.50437	0.25439	0.01919	-0.20699	-93.51898	-1.27472
P11	0.51470	0.26491	0.01052	0.18281	0.2308383E-02	0.08987
P12	0.52625	0.27694	0.01202	-0.09344	-0.3564573E-02	-0.14938
P7	0.53337	0.28449	0.00755	0.10556	11.19418	0.24047
P19	0.54656	0.29873	0.01424	-0.12980	0.5050495E-01	1.44116
P18	0.55576	0.30887	0.01015	0.17825	-0.3295292E-02	-0.19002
P13	0.55977	0.31334	0.00447	-0.18547	-0.1035506E-03	-0.10203
P9	0.56571	0.32003	0.00668	0.26905	2.797320	0.04425
P10	0.56836	0.32303	0.00300	0.13194	-0.4140132E-02	-0.32062
P2	0.57118	0.32624	0.00321	-0.20718	-2.186772	-0.17623
P1	0.57369	0.32913	0.00288	0.17242	-0.2114601E-03	-0.10889
R2	0.57539	0.33108	0.00195	-0.00032	0.1838948E-01	0.00158
P5	0.57706	0.33300	0.00192	0.00494	-0.4796730E-01	-0.06459
P14	0.57834	0.33448	0.00148	-0.16686	-0.5392584E-02	-0.05494
R3	0.57924	0.33551	0.00103	0.01488	-0.8864504	-0.08641
P15	0.58018	0.33661	0.00109	0.14935	-0.4892213E-02	-0.08404
R4	0.58128	0.33789	0.00128	0.06526	-0.7036623	-0.06164
P3	0.58180	0.33849	0.00060	-0.03537	-1.321085	-0.05309
P20	0.58247	0.33927	0.00078	0.21894	0.9334291E-02	0.36887
P4	0.58271	0.33955	0.00028	0.20773	-0.2650994E-04	-0.04256
R1	0.58287	0.33974	0.00019	-0.03970	-0.2553523	-0.02371
P16	0.58301	0.33990	0.00016	0.13146	-0.1192987E-02	-0.04025
(CONSTANT)					31.70665	

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DEPENDENT VARIABLE.. C55

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VARIABLE LIST 1

REGRESSION LIST 4

VARIABLE(S) ENTERED ON STEP NUMBER 9.. P6

MULTIPLE R	0.56647	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.32088	REGRESSION	9.	407.61201	45.29022	4.35753	0.0001	
ADJUSTED R SQUARE	0.24725	RESIDUAL	83.	862.66463	10.39355			
STANDARD ERROR	3.22390							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERRDR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
R4	5.579822	0.54860	1.27864	19.043	P3	0.07414	0.06981	0.60201	0.402
P2	-4.234650	-0.38306	1.79883	5.542	P4	0.02991	0.02908	0.64198	0.069
R1	3.501062	0.36491	1.28593	7.413	P5	0.04166	0.04890	0.93562	0.197
R2	3.011518	0.28960	1.30266	5.345	P8	0.01765	0.01621	0.57313	0.022
R3	2.024151	0.22147	1.22053	2.750	P9	0.00861	0.00871	0.69593	0.006
R6	1.421984	0.14821	1.24843	1.297	P10	0.07863	0.07078	0.55033	0.413
P1	-0.3234045E-03	-0.18692	0.00028	1.333	P11	-0.03885	-0.04296	0.83060	0.152
P7	6.341041	0.15290	4.03414	2.471	P12	0.00397	0.00431	0.80074	0.002
P6	0.9821726E-01	0.13401	0.07279	1.821	P13	-0.04971	-0.05624	0.86930	0.260
(CDNSTANT)	12.58210				P14	0.07440	0.08128	0.81048	0.545

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P3	0.07414	0.06981	0.60201	0.402
P4	0.02991	0.02908	0.64198	0.069
P5	0.04166	0.04890	0.93562	0.197
P8	0.01765	0.01621	0.57313	0.022
P9	0.00861	0.00871	0.69593	0.006
P10	0.07863	0.07078	0.55033	0.413
P11	-0.03885	-0.04296	0.83060	0.152
P12	0.00397	0.00431	0.80074	0.002
P13	-0.04971	-0.05624	0.86930	0.260
P14	0.07440	0.08128	0.81048	0.545
P15	-0.04840	-0.04029	0.47055	0.133
P16	0.02827	0.02243	0.42764	0.041
P17	0.07826	0.07162	0.56878	0.423
P18	0.09279	0.08835	0.61574	0.645
P19	0.03691	0.03166	0.49964	0.082
P20	0.01912	0.01931	0.69278	0.031
P21	-0.05154	-0.05716	0.83534	0.269
P22	-0.04831	-0.05346	0.83178	0.235
P23	-0.04340	-0.04784	0.82535	0.188
P24	-0.04864	-0.05383	0.83181	0.238
JUR	-0.06323	-0.05702	0.55233	0.267
R5	0.13617	0.07594	0.21123	0.476
R7	-0.07084	-0.07594	0.78046	0.476

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DEPENDENT VARIABLE.. C55

VARIABLE LIST 1
REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
R4	0.37853	0.14329	0.14329	0.37853	5.462924	0.53711
P2	0.43658	0.19060	0.04732	-0.26775	-4.018327	-0.36319
R1	0.47177	0.22257	0.03197	0.08013	3.346477	0.34880
R2	0.49954	0.24954	0.02697	0.05530	2.168025	0.20849
R3	0.51721	0.26751	0.01796	-0.07366	1.422578	0.15565
R6	0.53032	0.28124	0.01373	-0.18461	1.028938	0.10725
P1	0.54083	0.29249	0.01126	0.14503	-0.4316936E-03	-0.24951
P7	0.55316	0.30599	0.01349	0.12852	-0.4059235	-0.00979
P6	0.56647	0.32088	0.01490	0.12341	0.5154185E-01	0.07032
P18	0.57113	0.32619	0.00530	0.14441	0.3988134E-02	0.25812
P3	0.57776	0.33381	0.00762	0.00703	3.693315	0.16659
P15	0.58187	0.33858	0.00477	-0.00340	-0.1072469E-01	-0.20680
JUR	-0.58537	0.34266	0.00408	-0.13020	-0.2869740E-01	-0.00367
R7	0.58888	0.34678	0.00412	-0.21836	-4.383921	-0.18422
P17	0.59124	0.34957	0.00279	0.07771	0.7967615E-02	0.68426
P20	0.59653	0.35585	0.00628	-0.05438	-0.2587352E-01	-1.14766
P5	0.60208	0.36251	0.00666	-0.01987	0.5247578E-01	0.07931
P11	0.60522	0.36629	0.00379	-0.07927	-0.4388981E-02	-0.19178
P16	0.60974	0.37178	0.00549	0.14456	-0.5238702E-02	-0.19841
P13	0.61478	0.37796	0.00618	-0.07114	-0.9223806E-04	-0.10201
P9	0.61594	0.37938	0.00142	-0.08247	40.95781	0.72720
P12	0.61710	0.38081	0.00143	-0.03970	-0.1363250E-02	-0.06413
P23	0.61788	0.38177	0.00096	-0.18895	0.8093009E-03	0.54693
P21	0.62091	0.38553	0.00376	-0.19221	-0.3438883E-03	-0.41954
P10	0.62110	0.38576	0.00023	0.06717	0.5297932E-02	0.46051
P19	0.62160	0.38639	0.00063	0.04182	-0.2876463E-01	-0.92129
P8	0.62929	0.39601	0.00961	0.02117	51.41686	0.78665
P14	0.62957	0.39636	0.00036	0.00942	-0.2600122E-02	-0.02974
(CONSTANT)					-4.199878	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C71
VARIABLE(S) ENTERED ON STEP NUMBER 7.. R3
VARIABLE LIST 1
REGRESSION LIST 5

MULTIPLE R	0.51474	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.26495	REGRESSION	7.	696.09691	99.44242	4.37701	0.0003
ADJUSTED R SQUARE	0.20442	RESIDUAL	85.	1931.13678	22.71926		
STANDARD ERROR	4.76647						

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P3	-11.52702	-0.36153	3.44227	11.214	P1	-0.02128	-0.01398	0.31714	0.016
P11	-0.6310268E-02	-0.19173	0.00327	3.733	P4	-0.05964	-0.05393	0.60112	0.245
P2	-5.546093	-0.34885	1.76663	9.856	P5	-0.03915	-0.04442	0.94647	0.166
P18	-0.6973864E-02	-0.31386	0.00258	7.280	P6	0.10021	0.09786	0.70094	0.812
R6	3.434393	0.24891	1.40209	6.000	P7	-0.03935	-0.03791	0.68189	0.121
R2	2.656893	0.17766	1.53972	2.978	P8	-0.03154	-0.03289	0.79931	0.091
R3	1.922178	0.14624	1.33967	2.059	P9	-0.02751	-0.02461	0.58797	0.051
(CONSTANT)	51.81983				P10	-0.02040	-0.01596	0.44972	0.021

P1	-0.02128	-0.01398	0.31714	0.016
P4	-0.05964	-0.05393	0.60112	0.245
P5	-0.03915	-0.04442	0.94647	0.166
P6	0.10021	0.09786	0.70094	0.812
P7	-0.03935	-0.03791	0.68189	0.121
P8	-0.03154	-0.03289	0.79931	0.091
P9	-0.02751	-0.02461	0.58797	0.051
P10	-0.02040	-0.01596	0.44972	0.021
P12	0.00548	0.00537	0.70479	0.002
P13	-0.01198	-0.01323	0.89541	0.015
P14	-0.07905	-0.08877	0.92675	0.667
P15	0.03183	0.03076	0.68644	0.080
P16	-0.03724	-0.02434	0.31408	0.050
P17	-0.03517	-0.02625	0.40943	0.058
P19	-0.00033	-0.00036	0.89033	0.000
P20	-0.03166	-0.02529	0.46917	0.054
P21	-0.07340	-0.08306	0.94114	0.584
P22	-0.07499	-0.08498	0.94379	0.611
P23	-0.07905	-0.08933	0.93871	0.676
P24	-0.07539	-0.08532	0.94145	0.616
JUR	0.04550	0.03925	0.54692	0.130
R1	0.04492	0.04331	0.68339	0.158
R4	0.07816	0.07813	0.73455	0.516
R5	-0.07406	-0.07848	0.82538	0.521
R7	-0.09976	-0.11153	0.91870	1.058

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C71
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 5

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P3	0.25912	0.06714	0.06714	-0.25912	-15.08889	-0.47324
P11	0.34287	0.11756	0.05042	-0.15373	-0.8301498E-02	-0.25223
P2	0.39127	0.15309	0.03553	-0.24784	-5.534871	-0.34814
P18	0.44625	0.19914	0.04605	-0.03156	-0.6524721E-02	-0.29364
R6	0.48050	0.23088	0.03174	0.13843	2.856644	0.20704
R2	0.49714	0.24715	0.01627	0.01834	3.028010	0.20248
R3	0.51474	0.26495	0.01780	0.05278	1.755140	0.13353
R7	0.52354	0.27410	0.00914	-0.20458	-8.223400	-0.24028
P14	0.53305	0.28415	0.01005	-0.14056	-0.2394730E-01	-0.19043
R5	0.53985	0.29143	0.00729	-0.11251	-1.644160	-0.09234
P7	0.54691	0.29911	0.00767	0.01383	-2.489379	-0.04174
P5	0.55210	0.30481	0.00571	-0.03358	-0.8327461E-01	-0.08751
JUR	0.55546	0.30853	0.00372	-0.10530	1.598193	0.14214
P8	0.55960	0.31315	0.00462	-0.08193	-91.93686	-0.97806
P19	0.56921	0.32400	0.01085	-0.08528	0.4714030E-01	1.04986
P13	0.57158	0.32670	0.00270	-0.05473	-0.1167106E-03	-0.08975
P20	0.57429	0.32981	0.00311	-0.08229	0.2440812E-01	0.75282
P17	0.57834	0.33447	0.00466	-0.06908	-0.5074728E-02	-0.30304
P6	0.58062	0.33712	0.00265	-0.10925	0.8327326E-01	0.07901
P9	0.58275	0.33960	0.00248	-0.06477	-27.17102	-0.33545
P10	0.58425	0.34135	0.00175	-0.07419	-0.4780031E-02	-0.28891
P12	0.58527	0.34254	0.00119	-0.00779	0.1887818E-02	0.06175
P4	0.58604	0.34344	0.00090	-0.06267	-0.7027397E-04	-0.08805
P15	0.58642	0.34389	0.00045	-0.02704	0.7519313E-02	0.10082
P1	0.58655	0.34404	0.00016	0.15846	-0.2762868E-03	-0.11104
P22	0.58666	0.34418	0.00013	-0.16527	0.9030274E-02	4.23144
P21	0.58815	0.34592	0.00174	-0.16703	-0.2748445E-02	-2.33154
P23	0.59258	0.35115	0.00523	-0.17230	-0.3918078E-02	-1.84118
(CONSTANT)					74.77667	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C87
VARIABLE(S) ENTERED ON STEP NUMBER 10.. P14
REGRESSION LIST 1
REGRESSION LIST 6

MULTIPLE R		0.59145	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES		MEAN SQUARE	F	P
R SQUARE		0.34981	REGRESSION		10.	326.79493		32.67949	4.41177	0.0001
ADJUSTED R SQUARE		0.27052	RESIDUAL		82.	607.40258		7.40735		
STANDARD ERROR		2.72164								

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
P8	-24.25049	-0.43264	7.94423	9.318		P3	-0.09477	-0.08657	0.54248	0.612	
P1	0.7139618E-04	0.04812	0.00024	0.089		P4	0.10554	0.05854	0.20004	0.279	
P20	-0.14422616E-01	-0.73583	0.00622	5.237		P10	-0.06845	-0.02231	0.06906	0.040	
P5	0.1326276	0.23373	0.05472	5.875		P11	-0.03371	-0.03247	0.60336	0.086	
P2	-2.683037	-0.28301	1.59352	2.835		P13	0.07780	0.08855	0.84236	0.640	
P6	0.1410205	0.22437	0.06662	4.480		P15	-0.07731	-0.06091	0.40359	0.302	
P7	5.044009	0.14182	3.84776	1.718		P16	-0.01438	-0.00612	0.11768	0.003	
P12	0.2305647E-02	0.12647	0.00184	1.568		P17	0.09550	0.04078	0.11857	0.135	
P9	22.59377	0.46778	15.18886	2.213		P18	-0.05169	-0.03544	0.30560	0.102	
P14	0.1027475E-01	0.13702	0.00846	1.477		P19	-0.12629	-0.03258	0.04327	0.086	
(CONSTANT)	14.19097					P21	0.07791	0.08392	0.75441	0.574	

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P3	-0.09477	-0.08657	0.54248	0.612
P4	0.10554	0.05854	0.20004	0.279
P10	-0.06845	-0.02231	0.06906	0.040
P11	-0.03371	-0.03247	0.60336	0.086
P13	0.07780	0.08855	0.84236	0.640
P15	-0.07731	-0.06091	0.40359	0.302
P16	-0.01438	-0.00612	0.11768	0.003
P17	0.09550	0.04078	0.11857	0.135
P18	-0.05169	-0.03544	0.30560	0.102
P19	-0.12629	-0.03258	0.04327	0.086
P21	0.07791	0.08392	0.75441	0.574
P22	0.08140	0.08776	0.75575	0.629
P23	0.08534	0.09184	0.75315	0.689
P24	0.08092	0.08715	0.75419	0.620
JUR	0.05209	0.04274	0.43759	0.148
R1	-0.06822	-0.07323	0.74929	0.437
R2	-0.02983	-0.03559	0.92535	0.103
R3	0.03919	0.04444	0.83603	0.160
R4	0.01702	0.02023	0.91934	0.033
R5	-0.06170	-0.07086	0.85760	0.409
R6	0.05912	0.06914	0.88946	0.389
R7	0.04823	0.05402	0.81554	0.237

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC- =1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C87 REGRESSION LIST 6

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.38710	0.14985	0.14985	-0.38710	-27.78802	-0.49575
P1	0.43666	0.19067	0.04082	0.31913	0.1795780E-03	0.12103
P20	0.47812	0.22860	0.03793	0.03452	-0.1347379E-01	-0.69691
P5	0.51415	0.26435	0.03575	0.20234	0.1262686	0.22253
P2	0.53402	0.28518	0.02083	-0.30782	-3.212945	-0.33891
P6	0.54941	0.30185	0.01667	-0.05233	0.1971123	0.31361
P7	0.56299	0.31696	0.01511	0.31467	5.085321	0.14298
P12	0.57249	0.32774	0.01078	-0.08102	0.1235168E-02	0.06775
P9	0.58147	0.33810	0.01036	0.13992	19.51352	0.40400
P14	0.59145	0.34981	0.01171	-0.21982	0.9579235E-02	0.12775
P23	0.59607	0.35530	0.00548	0.03105	0.2825495E-02	2.22662
P13	0.60160	0.36192	0.00662	-0.08997	0.9529834E-04	0.12250
P3	0.60631	0.36762	0.00570	-0.05508	-1.753745	-0.09224
P15	0.61148	0.37391	0.00629	-0.10445	-0.8452502E-02	-0.19006
P22	0.61526	0.37854	0.00463	0.03357	-0.3107922E-02	-2.44223
R6	0.61873	0.38283	0.00429	0.12238	0.9108029	0.11070
P18	0.62280	0.38788	0.00505	0.14459	-0.2101352E-02	-0.15859
R3	0.62620	0.39213	0.00425	0.04360	0.6648853	0.08483
P17	0.62989	0.39677	0.00463	-0.09187	0.5360008E-02	0.53677
R7	0.63188	0.39927	0.00250	-0.03181	-2.584850	-0.12665
P11	0.63313	0.40085	0.00158	-0.10487	-0.1369162E-02	-0.06576
P10	0.63451	0.40261	0.00175	-0.12648	-0.2916708E-02	-0.29564
JUR	0.63541	0.40375	0.00115	-0.19667	0.3945117	0.05884
R4	0.63605	0.40456	0.00081	0.09147	0.3295760	0.03779
P21	0.63627	0.40483	0.00027	0.02804	0.3267830E-03	0.46489
R1	0.63635	0.40494	0.00010	-0.14401	0.1203838	0.01463
(CONSTANT)					18.37204	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ELEMENTARY ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C103
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P15
VARIABLE LIST 1
REGRESSION LIST 7

MULTIPLE R	0.58224	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.33901	REGRESSION		9.	1233.78148	137.08683	4.72989	0.0000
ADJUSTED R SQUARE	0.26734	RESIDUAL		83.	2405.59745	28.98310		
STANDARD ERROR	5.38360							

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
P8	-32.93336	-0.29768	48.28471	0.465		P1	-0.05614	-0.06045	0.76662	0.301	
R2	1.578143	0.08966	1.69453	0.867		P2	0.03947	0.03981	0.67227	0.130	
P6	-0.6190286	-0.49899	0.16897	13.421		P5	-0.04581	-0.04980	0.78117	0.204	
P3	16.21509	0.43209	4.51282	12.911		P7	0.00475	0.00434	0.55326	0.002	
P11	0.8032950E-02	0.20738	0.00454	3.137		P10	0.00246	0.00123	0.16557	0.000	
P9	-36.03350	-0.37797	18.38386	3.842		P12	0.01042	0.01108	0.74703	0.010	
P19	0.3916858E-01	0.74116	0.02355	2.765		P13	-0.04424	-0.04731	0.75613	0.184	
P4	0.2220455E-03	0.23638	0.00016	1.872		P14	0.04395	0.04766	0.77725	0.187	
P15	-0.1478710E-01	-0.16846	0.01301	1.292		P16	-0.12250	-0.10268	0.46440	0.874	
(CONSTANT)	-12.71495					P17	0.00397	0.00194	0.15753	0.000	

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
P18	0.05956	0.05103	0.48524	0.214	
P20	-0.23980	-0.07928	0.07225	0.519	
P21	0.08595	0.09816	0.86209	0.798	
P22	0.08799	0.10052	0.86268	0.837	
P23	0.09648	0.10999	0.85908	1.004	
P24	0.08938	0.10204	0.86140	0.863	
JUR	-0.08042	-0.07416	0.56216	0.454	
R1	0.05755	0.05846	0.68198	0.281	
R3	-0.00324	-0.00368	0.85206	0.001	
R4	0.02815	0.03293	0.90436	0.089	
R5	-0.06783	-0.07702	0.85225	0.489	
R6	-0.05234	-0.06166	0.91717	0.313	
R7	0.08783	0.10237	0.89806	0.869	

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DEPENDENT VARIABLE.. C103

VARIABLE LIST 1
REGRESSION LIST 7

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.33609	0.11295	0.11295	0.33609	63.81792	0.57684
R2	0.39653	0.15723	0.04428	0.24187	-0.9425296	-0.05355
P6	0.44588	0.19881	0.04158	-0.02662	-0.6380305	-0.51431
P3	0.51739	0.26769	0.06888	0.22912	18.33768	0.48866
P11	0.53764	0.28906	0.02137	-0.00418	0.6129765E-02	0.15824
P9	0.54800	0.30030	0.01124	-0.28836	78.25652	0.82087
P19	0.56325	0.31725	0.01695	0.29697	-0.2800236E-01	-0.52987
P4	0.57334	0.32872	0.01147	-0.21658	0.1935098E-03	0.20600
P15	0.58224	0.33901	0.01029	-0.16653	-0.2647389E-01	-0.30159
P23	0.58907	0.34701	0.00800	0.02158	0.2960677E-02	1.18209
P22	0.59640	0.35569	0.00869	0.01747	-0.5074668E-02	-2.02037
JUR	0.60017	0.36020	0.00451	0.17422	-1.079628	-0.08158
P14	0.60593	0.36715	0.00695	0.16370	0.1097368E-01	0.07414
P16	0.61080	0.37308	0.00594	-0.24411	-0.7786654E-02	-0.17423
P10	0.61515	0.37840	0.00532	-0.08600	0.2495298E-01	1.28143
P20	0.63116	0.39836	0.01995	-0.26509	-0.7429490E-01	-1.94694
P18	0.63722	0.40605	0.00769	-0.16726	0.6619305E-02	0.25311
R5	0.64009	0.40971	0.00366	-0.14675	-2.966991	-0.14153
P5	0.64236	0.41262	0.00291	-0.09874	-0.8874417E-01	-0.07924
R1	0.64471	0.41565	0.00303	0.12598	-0.3455596	-0.02128
P1	0.64813	0.42007	0.00443	-0.19159	-0.3459713E-03	-0.11814
P7	0.65132	0.42421	0.00414	-0.13943	-9.011749	-0.12838
R6	0.65241	0.42564	0.00142	-0.14082	-2.403015	-0.14797
P21	0.65284	0.42619	0.00055	0.01631	0.1261171E-02	0.90900
P12	0.65312	0.42657	0.00038	-0.02259	-0.1242497E-02	-0.03453
R3	0.65358	0.42716	0.00059	-0.03073	-1.989635	-0.12861
P13	0.65384	0.42751	0.00034	0.06605	0.4181960E-04	0.02732
R4	0.65399	0.42770	0.00019	-0.08524	-1.481757	-0.08607
(CONSTANT)					-44.05307	

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DEPENDENT VARIABLE.. C151

VARIABLE LIST 1
REGRESSION LIST 8

VARIABLE(S) ENTERED ON STEP NUMBER 5.. P16

MULTIPLE R	0.69151	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.47819	REGRESSION	5.	5565.94462	1113.18892	15.94541	0.0000
ADJUSTED R SQUARE	0.44820	RESIDUAL	87.	6073.68825	69.81251		
STANDARD ERROR	8.35539						

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	9.071596	0.38332	2.57972	12.366		P1	-0.06748	-0.06783	0.52715	0.397
P9	-39.50617	-0.23172	16.62476	5.647		P2	0.06070	0.04801	0.32646	0.199
P14	0.6653326E-01	0.25136	0.02351	8.010		P3	0.05713	0.07320	0.85677	0.463
R1	-4.722821	-0.16262	2.42713	3.786		P4	0.16147	0.11125	0.24768	1.078
P16	-0.1367182E-01	-0.17106	0.00826	2.739		P5	-0.09034	-0.11686	0.87316	1.191
(CONSTANT)	8.916520					P6	-0.04147	-0.05438	0.89729	0.255
						P7	-0.00096	-0.00123	0.86971	0.000
						P8	-0.03854	-0.03923	0.54053	0.133
						P10	-0.04662	-0.03608	0.31245	0.112
						P11	0.02595	0.03134	0.76113	0.085
						P12	0.06418	0.08382	0.89004	0.608
						P13	0.08313	0.11122	0.93401	1.077
						P15	-0.06908	-0.07556	0.62414	0.494
						P17	0.02557	0.01984	0.31411	0.034
						P18	-0.05612	-0.05392	0.48172	0.251
						P19	-0.05004	-0.05622	0.65857	0.273
						P20	0.16057	0.04934	0.04926	0.210
						P21	-0.02298	-0.02838	0.79598	0.069
						P22	-0.02267	-0.02797	0.79447	0.067
						P23	-0.02916	-0.03587	0.78938	0.111
						P24	-0.02457	-0.03029	0.79331	0.079
						R2	0.08365	0.10913	0.88811	1.036
						R3	-0.06583	-0.08762	0.92446	0.665
						R4	-0.06412	-0.08658	0.95138	0.650
						R5	0.07070	0.09326	0.90796	0.755
						R6	-0.00539	-0.00720	0.93248	0.004
						R7	0.02369	0.03032	0.85531	0.079

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DEPENDENT VARIABLE.. C151

VARIABLE LIST 1
REGRESSION LIST 8

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.62075	0.38532	0.38532	0.62075	3.534362	0.14934
P9	0.64249	0.41280	0.02747	-0.46725	-125.0380	-0.73340
P14	0.66190	0.43811	0.02532	0.28885	0.7023288E-01	0.26534
R1	0.67953	0.46176	0.02365	0.07702	-1.088495	-0.03748
P16	0.69151	0.47819	0.01643	-0.42029	-0.1465841E-01	-0.18340
P5	0.69665	0.48532	0.00713	-0.14567	-0.4159502E-01	-0.02077
P13	0.70237	0.49332	0.00800	0.17393	0.3773461E-03	0.13786
P15	0.70769	0.50083	0.00751	-0.36448	-0.1878691E-01	-0.11967
R5	0.71169	0.50651	0.00568	-0.05343	3.735313	0.09967
P1	0.71652	0.51340	0.00689	-0.44894	-0.7243585E-03	-0.13831
P18	0.71923	0.51730	0.00390	-0.37424	-0.3692225E-02	-0.07895
P11	0.72138	0.52039	0.00309	-0.20548	0.6160667E-02	0.08893
P8	0.72463	0.52509	0.00470	0.34100	-38.07329	-0.19243
R7	0.72667	0.52805	0.00296	-0.04614	23.13281	0.32112
P23	0.73471	0.53980	0.01175	-0.17973	-0.8067160E-02	-1.80104
P22	0.73732	0.54364	0.00385	-0.18152	0.9672047E-02	2.15320
P4	0.73983	0.54735	0.00370	-0.34950	0.2995245E-03	0.17829
R6	0.74132	0.54956	0.00221	-0.01876	1.265026	0.04356
P3	0.74302	0.55208	0.00252	0.20365	7.196380	0.10723
P12	0.74520	0.55532	0.00324	0.04661	0.4515846E-02	0.07017
P10	0.74735	0.55853	0.00321	-0.33210	-0.2531673E-01	-0.72698
P17	0.74856	0.56034	0.00181	-0.30273	0.1205502E-01	0.34201
P20	0.74971	0.56206	0.00172	-0.42974	0.3847797E-01	0.56383
R2	0.75042	0.56312	0.00106	0.12542	1.172910	0.03726
P21	0.75088	0.56382	0.00070	-0.18038	-0.1669203E-02	-0.67274
P2	0.75132	0.56449	0.00067	0.47155	-2.812843	-0.08406
P6	0.75183	0.56524	0.00075	0.03076	-0.1026167	-0.04625
P19	0.75229	0.56594	0.00069	0.20943	0.2081364E-01	0.22023
(CONSTANT)					27.47974	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C11
VARIABLE(S) ENTERED ON STEP NUMBER 5.. P13
VARIABLE LIST 1
REGRESSION LIST 1

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.37190	REGRESSION	5.	645.51671	129.10334	2.79294	0.0218				
ADJUSTED R SQUARE	0.08879	RESIDUAL	87.	4021.56290	46.22486						
STANDARD ERROR	6.79889										

----- VARIABLES IN THE EQUATION -----					----- VARIABLES NOT IN THE EQUATION -----				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P8	-16.32168	-0.13028	14.29760	1.303	P1	-0.09481	-0.08372	0.67202	0.607
P3	8.901507	0.20947	4.33768	4.211	P2	0.08382	0.06710	0.55222	0.389
R6	3.168706	0.17231	1.86753	2.879	P4	0.00540	0.00445	0.58444	0.002
JUR	-2.143326	-0.14303	1.67497	1.637	P5	-0.00617	-0.00648	0.95114	0.004
P13	-0.2013083E-03	-0.11615	0.00018	1.252	P6	-0.10425	-0.08787	0.61206	0.669
(CONSTANT)	28.22842				P7	0.02719	0.02642	0.81388	0.060

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	-0.09481	-0.08372	0.67202	0.607
P2	0.08382	0.06710	0.55222	0.389
P4	0.00540	0.00445	0.58444	0.002
P5	-0.00617	-0.00648	0.95114	0.004
P6	-0.10425	-0.08787	0.61206	0.669
P7	0.02719	0.02642	0.81388	0.060
P9	-0.04134	-0.03164	0.50468	0.086
P10	-0.02793	-0.02503	0.69163	0.054
P11	0.04271	0.04368	0.90129	0.164
P12	-0.04449	-0.04284	0.79879	0.158
P14	-0.04512	-0.04512	0.86163	0.175
P15	0.03337	0.03004	0.69805	0.078
P16	-0.11876	-0.10058	0.61805	0.879
P17	-0.03200	-0.02859	0.68772	0.070
P18	-0.09110	-0.07911	0.64969	0.542
P19	-0.13379	-0.04254	0.08710	0.156
P20	-0.06168	-0.05078	0.58392	0.222
P21	-0.05557	-0.05874	0.96264	0.298
P22	-0.05191	-0.05485	0.96209	0.259
P23	-0.05313	-0.05628	0.96666	0.273
P24	-0.05404	-0.05715	0.96371	0.282
R1	0.02950	0.02819	0.78719	0.068
R2	-0.03882	-0.03826	0.83710	0.126
R3	-0.02483	-0.02573	0.92521	0.057
R4	0.02818	0.02846	0.87896	0.070
R5	0.03531	0.03647	0.91935	0.115
R7	-0.04579	-0.04906	0.98914	0.208

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C11
VARIABLE LIST 1
REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.22592	0.05104	0.05104	-0.22592	100.4359	0.80166
P3	0.28235	0.07972	0.02868	0.13796	15.26031	0.35910
R6	0.32727	0.10711	0.02739	0.19026	3.150069	0.17129
JUR	0.35484	0.12591	0.01880	-0.19027	-1.004726	-0.06705
P13	0.37190	0.13831	0.01240	-0.17208	-0.2747049E-03	-0.15850
P16	0.38345	0.14703	0.00872	-0.02920	-0.1194095E-01	-0.23594
P21	0.39086	0.15277	0.00574	-0.01999	-0.9215395E-02	-5.86539
P15	0.39917	0.15933	0.00656	0.02766	0.2530550E-01	0.25457
P6	0.41227	0.16996	0.01063	-0.07811	-0.3481294	-0.24781
P7	0.41795	0.17468	0.00471	0.10461	8.316883	0.10462
P11	0.42666	0.18204	0.00736	0.03298	0.3861561E-02	0.08803
P18	0.43169	0.18635	0.00431	-0.01108	0.2718079E-02	0.09178
P10	0.43846	0.19225	0.00590	-0.04379	0.3627686E-01	1.64510
P20	0.44540	0.19839	0.00614	0.04957	-0.8714197E-01	-2.01656
P4	0.45256	0.20481	0.00643	0.07610	0.1167526E-03	0.10975
P17	0.45629	0.20820	0.00339	-0.04786	-0.6491224E-02	-0.29083
P9	0.45951	0.21115	0.00295	0.10889	125.0927	1.15872
P19	0.46654	0.21766	0.00651	-0.21776	-0.7242492E-01	-1.21019
P1	0.47001	0.22091	0.00325	0.01677	-0.1318043E-02	-0.39743
R2	0.47458	0.22523	0.00432	-0.05798	-2.842199	-0.14259
P22	0.47693	0.22747	0.00224	-0.01682	0.3256289E-01	11.44819
P23	0.52470	0.27531	0.04784	-0.01926	-0.1582870E-01	-5.58077
R7	0.52777	0.27854	0.00323	-0.05125	-8.075986	-0.17705
R3	0.53049	0.28142	0.00288	-0.02951	-1.343366	-0.07668
P14	0.53275	0.28382	0.00240	-0.12961	-0.1433287E-01	-0.08552
R5	0.53345	0.28457	0.00074	0.02079	-0.7786380	-0.03281
P5	0.53382	0.28496	0.00039	0.02914	-0.3372192E-01	-0.02659
P12	0.53409	0.28525	0.00029	-0.12159	-0.9589963E-03	-0.02353
P2	0.53423	0.28540	0.00016	-0.01890	-0.6753858	-0.03187
(CONSTANT)					-35.15134	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C27
VARIABLE(S) ENTERED ON STEP NUMBER 3.. P14
MULTIPLE REGRESSION
VARIABLE LIST 1
REGRESSION LIST 2

MULTIPLE R		0.26606	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE		0.07079	REGRESSION		3.	82.95457	27.65152	2.26004	0.0869
ADJUSTED R SQUARE		0.03947	RESIDUAL		89.	1088.91222	12.23497		
STANDARD ERROR		3.49785							

VARIABLES IN THE EQUATION									
VARIABLE	B	BETA	STD ERROR B	F	VARIABLES NOT IN THE EQUATION				
JUR	-1.086633	-0.14471	0.79458	1.870	P1	-0.08253	-0.07189	0.70521	0.457
R4	1.296476	0.13271	1.00290	1.671	P2	0.01922	0.01544	0.59987	0.021
P14	-0.1096539E-01	-0.13056	0.00890	1.519	P3	0.08120	0.07939	0.88815	0.558
(CONSTANT)	20.74087				P4	0.04001	0.03552	0.73204	0.111

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	-0.08253	-0.07189	0.70521	0.457
P2	0.01922	0.01544	0.59987	0.021
P3	0.08120	0.07939	0.88815	0.558
P4	0.04001	0.03552	0.73204	0.111
P5	-0.08544	-0.08661	0.95492	0.665
P6	-0.03424	-0.03508	0.97549	0.108
P7	-0.07105	-0.06976	0.89586	0.430
P8	-0.08448	-0.07737	0.77926	0.530
P9	0.05698	0.04981	0.71005	0.219
P10	-0.06294	-0.04998	0.58594	0.220
P11	-0.02926	-0.02912	0.92025	0.075
P12	-0.01045	-0.01038	0.91754	0.009
P13	-0.06398	-0.06509	0.96178	0.374
P15	0.08264	0.07353	0.73576	0.478
P16	-0.05327	-0.04250	0.59148	0.159
P17	-0.04966	-0.03933	0.58272	0.136
P18	-0.09227	-0.08389	0.76803	0.624
P19	-0.07800	-0.07414	0.83963	0.486
P20	0.02917	0.02474	0.66868	0.054
P21	0.04913	0.04915	0.92982	0.213
P22	0.04731	0.04732	0.92936	0.197
P23	0.05049	0.05065	0.93499	0.226
P24	0.04910	0.04914	0.93091	0.213
R1	-0.01075	-0.01049	0.88595	0.010
R2	0.04624	0.04695	0.95795	0.194
R3	-0.05017	-0.05073	0.94993	0.227
R5	0.09375	0.09541	0.96236	0.808
R6	-0.06586	-0.06659	0.95013	0.392
R7	0.02905	0.02965	0.96802	0.077

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C27
VARIABLE LIST 1
REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.18721	0.03505	0.03505	-0.18721	-0.1224836	-0.01631
R4	0.23437	0.05493	0.01988	0.15358	1.873946	0.19183
P14	0.26606	0.07079	0.01586	-0.17858	-0.1153190E-01	-0.13731
R5	0.28151	0.07925	0.00846	0.09139	1.487986	0.12513
P18	0.29802	0.08882	0.00957	-0.01642	-0.1656508E-03	-0.01116
P8	0.31219	0.09746	0.00864	-0.18109	-17.14568	-0.27311
P5	0.32361	0.10472	0.00726	-0.06263	-0.6555057E-01	-0.10314
P15	0.33723	0.11373	0.00900	0.10240	0.1108554E-01	0.22255
P10	0.34763	0.12085	0.00712	-0.02959	-0.9903580E-02	-0.89627
R2	0.36127	0.13052	0.00967	0.03174	1.722837	0.17249
P20	0.37273	0.13892	0.00841	0.07025	0.9035471E-02	0.41727
P13	0.38214	0.14603	0.00711	-0.09998	-0.9415217E-04	-0.10841
P7	0.38641	0.14932	0.00329	-0.00557	-4.733432	-0.11883
R1	0.38846	0.15090	0.00159	-0.09886	0.7493899	0.08132
P11	0.39083	0.15275	0.00184	-0.01391	-0.1593402E-02	-0.07249
P17	0.39453	0.15565	0.00291	-0.02219	0.4665332E-02	0.41714
P4	0.39622	0.15699	0.00134	0.09202	-0.5507585E-04	-0.10332
P1	0.39737	0.15791	0.00091	0.05714	-0.2045417E-03	-0.12308
P2	0.40022	0.16018	0.00227	-0.11675	-1.855847	-0.17478
P19	0.40268	0.16215	0.00198	-0.16544	0.9767136E-02	0.32570
P6	0.40451	0.16363	0.00147	-0.06928	-0.7875627E-01	-0.11188
P3	0.40854	0.16690	0.00328	0.02610	1.894306	0.08896
R3	0.40951	0.16770	0.00079	-0.07303	0.3201572	0.03647
P23	0.40995	0.16806	0.00036	0.09099	0.1867218E-02	1.31379
R7	0.41289	0.17048	0.00242	0.03949	-2.618769	-0.11457
P22	0.41445	0.17177	0.00129	0.08844	-0.2887156E-02	-2.02566
P21	0.41539	0.17255	0.00078	0.08870	0.6663072E-03	0.84633
P12	0.41565	0.17276	0.00021	-0.02830	-0.4052010E-03	-0.01984
(CONSTANT)					33.18277	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC-=1=SEP
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***** M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C43 REGRESSION LIST 3

VARIABLE(S) ENTERED ON STEP NUMBER 9.. JUR

MULTIPLE R	0.64265	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.41300	REGRESSION	9.	1294.53630	143.83737	6.48854	0.0000
ADJUSTED R SQUARE	0.34935	RESIDUAL	83.	1839.93602	22.16790		
STANDARD ERROR	4.70828						

----- VARIABLES IN THE EQUATION -----					----- VARIABLES NOT IN THE EQUATION -----				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P2	4.932929	0.28407	1.96751	6.286	P1	0.10588	0.07555	0.29880	0.471
R3	-3.565957	-0.24838	1.30429	7.475	P4	0.08867	0.06056	0.27387	0.302
P15	-0.9799876E-02	-0.12030	0.00860	1.297	P5	0.10044	0.12644	0.93018	1.332
P3	5.720456	0.16426	3.23551	3.126	P6	-0.13875	-0.12995	0.51491	1.408
P13	-0.4258694E-03	-0.29983	0.00014	9.606	P7	-0.00780	-0.00804	0.62243	0.005
R2	3.548929	0.21726	1.61969	4.801	P8	-0.04859	-0.04368	0.47423	0.157
R7	-6.934203	-0.18549	3.37863	4.212	P10	-0.11286	-0.08003	0.29512	0.529
P9	24.97331	0.28227	9.58539	6.788	P11	-0.00774	-0.00795	0.61896	0.005
JUR	3.568495	0.29057	1.62559	4.819	P12	-0.03657	-0.04013	0.70710	0.132
(CONSTANT)	14.89771				P14	-0.05034	-0.05728	0.76012	0.270

P1	0.10588	0.07555	0.29880	0.471
P4	0.08867	0.06056	0.27387	0.302
P5	0.10044	0.12644	0.93018	1.332
P6	-0.13875	-0.12995	0.51491	1.408
P7	-0.00780	-0.00804	0.62243	0.005
P8	-0.04859	-0.04368	0.47423	0.157
P10	-0.11286	-0.08003	0.29512	0.529
P11	-0.00774	-0.00795	0.61896	0.005
P12	-0.03657	-0.04013	0.70710	0.132
P14	-0.05034	-0.05728	0.76012	0.270
P16	-0.16468	-0.12040	0.31381	1.206
P17	-0.07416	-0.05391	0.31012	0.239
P18	-0.06976	-0.06767	0.55233	0.377
P19	-0.05408	-0.05014	0.50449	0.207
P20	-0.32781	-0.12432	0.08443	1.287
P21	0.04432	0.02581	0.19912	0.055
P22	0.05802	0.03201	0.17868	0.084
P23	0.03371	0.01775	0.16276	0.026
P24	0.04587	0.02557	0.18232	0.054
R1	0.06531	0.07019	0.67792	0.406
R4	-0.03217	-0.03827	0.83057	0.120
R5	0.03194	0.03860	0.85726	0.122
R6	-0.05339	-0.06131	0.77396	0.309

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C43 REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P2	0.39791	0.15833	0.15833	0.39791	4.393831	0.25302
R3	0.45324	0.20542	0.04709	-0.20694	-3.525170	-0.24554
P15	0.51349	0.26367	0.05825	-0.31722	0.4961477E-02	0.06090
P3	0.54073	0.29239	0.02872	0.26807	9.113535	0.26168
P13	0.56579	0.32012	0.02773	-0.13971	-0.5691577E-03	-0.40071
R2	0.58245	0.33924	0.01913	0.20375	3.785141	0.23172
R7	0.59563	0.35477	0.01553	-0.07627	-10.20078	-0.27287
P9	0.61556	0.37892	0.02414	-0.12829	73.73419	0.83340
JUR	0.64265	0.41300	0.03408	0.35200	4.718753	0.38423
P6	0.65032	0.42291	0.00991	-0.08019	-0.1793637	-0.15579
P16	0.65719	0.43189	0.00898	-0.35926	-0.1156730E-01	-0.27889
P4	0.66195	0.43818	0.00629	-0.15737	0.2345459E-03	0.26904
P5	0.67249	0.45224	0.01406	0.13936	0.1783218	0.17157
R1	0.67695	0.45826	0.00602	0.10506	1.129970	0.07498
P17	0.67906	0.46112	0.00285	-0.27992	0.7981570E-02	0.43636
P20	0.68397	0.46781	0.00669	-0.18419	-0.3871671E-01	-1.09326
P19	0.68529	0.46962	0.00181	-0.09698	-0.4134445E-01	-0.84299
P8	0.68672	0.47159	0.00196	-0.00764	71.79478	0.69926
P1	0.68736	0.47246	0.00088	-0.28037	-0.2910520E-03	-0.10709
P10	0.68777	0.47303	0.00057	-0.28529	0.5259212E-02	0.29102
P14	0.68800	0.47334	0.00031	0.04148	-0.6385572E-02	-0.04649
P11	0.68834	0.47381	0.00047	-0.02944	-0.2503399E-02	-0.06964
R5	0.68847	0.47399	0.00017	-0.02078	0.2745829E-01	0.00141
P22	0.68857	0.47412	0.00014	-0.09576	0.1793167E-01	7.69263
P23	0.69482	0.48277	0.00865	-0.09202	-0.9541938E-02	-4.10512
P21	0.70352	0.49494	0.01217	-0.09765	-0.4600453E-02	-3.57293
P18	0.70603	0.49848	0.00353	-0.26677	0.4207482E-02	0.17336
P7	0.70713	0.50003	0.00155	0.02312	-5.276325	-0.08099
R6	0.70721	0.50015	0.00012	0.03829	0.2368607	-0.01572
P12	0.70730	0.50027	0.00012	-0.03516	0.5055760E-03	0.01514
(CONSTANT)					-14.90806	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C59
VARIABLE(S) ENTERED ON STEP NUMBER 6.. R2
VARIABLE LIST 1
REGRESSION LIST 4

MULTIPLE R	0.46010	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.21169	REGRESSION	6.	877.26465	146.21077	3.84911	0.0019
ADJUSTED R SQUARE	0.15670	RESIDUAL	86.	3266.76074	37.98559		
STANDARD ERROR	6.16325						

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P8	-45.03454	-0.38147	13.37489	11.337	P1	0.02295	0.02041	0.62332	0.035
P5	-0.1830954	-0.15321	0.11777	2.417	P2	-0.03976	-0.02911	0.42270	0.072
P16	-0.2360025E-01	-0.49487	0.00842	7.864	P3	0.04852	0.04861	0.79146	0.201
P17	0.8958208E-02	0.42594	0.00384	5.441	P4	-0.15290	-0.10637	0.38151	0.973
P7	17.43813	0.23280	9.20412	3.590	P6	0.05509	0.05339	0.74024	0.243
R2	2.532634	0.13484	1.80890	1.960	P9	-0.11072	-0.07512	0.36292	0.482
(CONSTANT)	4.930075				P10	-0.01269	-0.00263	0.03392	0.001

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	0.02295	0.02041	0.62332	0.035
P2	-0.03976	-0.02911	0.42270	0.072
P3	0.04852	0.04861	0.79146	0.201
P4	-0.15290	-0.10637	0.38151	0.973
P6	0.05509	0.05339	0.74024	0.243
P9	-0.11072	-0.07512	0.36292	0.482
P10	-0.01269	-0.00263	0.03392	0.001
P11	-0.08896	-0.07061	0.49661	0.426
P12	0.01794	0.01820	0.81087	0.028
P13	-0.03482	-0.03513	0.80281	0.105
P14	0.03699	0.03575	0.73611	0.109
P15	0.08749	0.06067	0.37907	0.314
P18	0.01540	0.00933	0.28901	0.007
P19	0.42540	0.08874	0.03430	0.675
P20	-0.15242	-0.08290	0.23317	0.588
P21	-0.08356	-0.09027	0.92000	0.698
P22	-0.08226	-0.08896	0.92212	0.678
P23	-0.07751	-0.08353	0.91549	0.597
P24	-0.08176	-0.08829	0.91927	0.668
JUR	0.06204	0.05500	0.61956	0.258
R1	0.04514	0.04524	0.79171	0.174
R3	-0.07937	-0.08587	0.92272	0.631
R4	-0.02554	-0.02799	0.94627	0.067
R5	0.07525	0.07994	0.88962	0.547
R6	0.04763	0.05122	0.91158	0.224
R7	-0.08327	-0.09065	0.93428	0.704

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C59 REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.30761	0.09462	0.09462	-0.30761	-89.24363	-0.75595
P5	0.33709	0.11363	0.01900	-0.11021	-0.2147659	-0.17971
P16	0.37419	0.14002	0.02639	-0.03441	-0.2321115E-01	-0.48671
P17	0.40316	0.16254	0.02252	-0.01069	0.1125700E-01	0.53525
P7	0.44014	0.19373	0.03119	0.22387	20.07446	0.26799
R2	0.46010	0.21169	0.01797	0.09547	3.268658	0.17403
P4	0.46969	0.22061	0.00892	0.09043	-0.1664876E-03	-0.16609
R5	0.47730	0.22781	0.00720	0.11233	1.743967	0.07799
P19	0.48197	0.23229	0.00448	-0.28277	0.1963969E-01	0.34827
R6	0.48582	0.23602	0.00373	0.06218	0.8059126	0.04651
JUR	0.48909	0.23921	0.00319	-0.04255	2.505389	0.17742
P11	0.49172	0.24179	0.00258	0.01990	-0.4122211E-02	-0.09973
P13	0.49469	0.24472	0.00293	-0.07343	-0.1041356E-03	-0.06376
P15	0.49645	0.24646	0.00175	-0.03699	0.6980385E-02	0.07452
R7	0.49863	0.24863	0.00216	-0.02113	-8.668989	-0.20168
P9	0.50057	0.25057	0.00194	0.12231	27.08901	0.26629
R3	0.50170	0.25170	0.00113	-0.08863	-0.5415628	-0.03281
P23	0.50273	0.25274	0.00104	0.00600	0.3971004E-02	1.48580
P24	0.50855	0.25862	0.00588	-0.00071	-0.9437693E-03	-1.34075
P20	0.51006	0.26016	0.00154	0.07941	-0.8512185E-02	-0.20904
P3	0.51069	0.26080	0.00064	0.05523	1.135294	0.02835
P2	0.51115	0.26128	0.00047	-0.00756	-0.9836392	-0.04926
P18	0.51128	0.26141	0.00013	0.14019	-0.8132972E-03	-0.02914
R4	0.51143	0.26156	0.00015	-0.01010	-0.3225252	-0.01756
(CONSTANT)					3.926200	

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DEPENDENT VARIABLE.. C75

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VARIABLE LIST 1

REGRESSION LIST 5

VARIABLE(S) ENTERED ON STEP NUMBER 13.. P14

MULTIPLE R	0.52987	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.28076	REGRESSION	13.	859.79771	66.13829	2.37222	0.0097
ADJUSTED R SQUARE	0.16241	RESIDUAL	79.	2202.54596	27.88033		
STANDARD ERROR	5.28018						

----- VARIABLES IN THE EQUATION -----

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P13	-0.4502096E-03	-0.32067	0.00015	9.206	P2	-0.02043	-0.01144	0.22550	0.010
R2	5.628386	0.34860	1.87195	9.040	P3	0.05871	0.05655	0.66709	0.250
P11	-0.1079048E-01	-0.30368	0.00495	4.754	P5	0.00592	0.00607	0.75547	0.003
P4	0.2881399E-03	0.33439	0.00018	2.438	P6	0.00208	0.00191	0.60548	0.000
P20	0.8892340E-03	0.02540	0.00921	0.009	P7	-0.02729	-0.02340	0.52889	0.043
P15	0.1276622E-01	0.15854	0.01332	0.918	P8	-0.02285	-0.01460	0.29378	0.017
P10	-0.2323700E-01	-1.30088	0.00990	5.512	P9	0.01390	0.00324	0.03907	0.001
P17	0.2279592E-01	1.26087	0.00988	5.321	P16	-0.15028	-0.07634	0.18561	0.457
R1	3.171364	0.21289	1.79183	3.133	P18	-0.00326	-0.00264	0.47252	0.001
R4	2.284824	0.14468	1.61417	2.004	P19	-0.00454	-0.00272	0.25899	0.001
P12	-0.4959851E-02	-0.15026	0.00364	1.859	P21	0.00757	0.00799	0.80072	0.005
P1	-0.5284677E-03	-0.19672	0.00031	2.867	P22	0.00654	0.00690	0.79992	0.004
P14	-0.1870947E-01	-0.13781	0.01732	1.166	P23	0.00501	0.00525	0.78959	0.002
(CONSTANT)	34.48199				P24	0.00665	0.00700	0.79744	0.004

JUR	0.01654	0.01195	0.37589	0.011
R3	-0.05381	-0.04974	0.61449	0.193
R5	0.03851	0.03941	0.75328	0.121
R6	0.02748	0.02762	0.72682	0.060
R7	-0.02528	-0.02735	0.84174	0.058

(PAIRWISE DELETION) R1 TO R7=7 REGIONS , JUR=0=PUBLIC=-1=SEP
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FILE NONAME (CREATION DATE = 08/25/80)

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***** MULTIPLE REGRESSION ***** VARIABLE LIST 1
DEPENDENT VARIABLE.. C75 REGRESSION LIST 5

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P13	0.21642	0.04684	0.04684	-0.21642	-0.5042493E-03	-0.35917
R2	0.29001	0.08411	0.03727	0.12755	4.868761	0.30155
P11	0.32787	0.10750	0.02339	-0.13380	-0.1202212E-01	-0.33834
P4	0.37630	0.14160	0.03411	0.07364	0.3042810E-03	0.35312
P20	0.39874	0.15900	0.01739	-0.04935	0.8335668E-02	0.23813
P15	0.41587	0.17294	0.01395	-0.02037	0.1267434E-01	0.15740
P10	0.43397	0.18833	0.01538	-0.11598	-0.2429876E-01	-1.36033
P17	0.46412	0.21541	0.02708	-0.07872	0.2583884E-01	1.42918
R1	0.47854	0.22901	0.01360	-0.01526	2.686660	0.18035
R4	0.49246	0.24252	0.01351	0.08306	1.944272	0.12312
P12	0.50329	0.25331	0.01079	-0.14056	-0.5395642E-02	-0.16346
P1	0.51975	0.27014	0.01684	-0.04719	-0.7237563E-03	-0.26942
P14	0.52987	0.28076	0.01062	-0.11128	-0.2132322E-01	-0.15706
P16	0.53381	0.28496	0.00419	-0.02179	-0.1122232E-01	-0.27374
R3	0.53588	0.28717	0.00221	-0.09324	-0.9346107	-0.06586
P2	0.53815	0.28961	0.00244	-0.03383	-3.075099	-0.17916
R7	0.53969	0.29126	0.00165	0.01442	-6.734227	-0.18225
P22	0.54182	0.29356	0.00230	0.04928	0.3813591E-02	1.65517
P9	0.54328	0.29515	0.00159	-0.01692	-15.95004	-0.18239
P3	0.54436	0.29633	0.00118	0.09358	2.997720	0.08708
P6	0.54547	0.29754	0.00120	-0.04114	-0.7132433E-01	-0.06268
JUR	0.54612	0.29825	0.00071	-0.09234	0.6616768	0.05451
P18	0.54668	0.29886	0.00061	-0.02750	0.1947040E-02	0.08116
P7	0.54710	0.29932	0.00046	0.11761	-2.806040	-0.04358
P21	0.54732	0.29956	0.00024	0.04715	-0.1073413E-02	-0.84342
P23	0.54785	0.30014	0.00058	0.05273	-0.1525862E-02	-0.66414
P5	0.54805	0.30036	0.00023	-0.09484	0.1945028E-01	0.01893
(CONSTANT)					34.21066	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=O=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

VARIABLE LIST 1
REGRESSION LIST 6
DEPENDENT VARIABLE.. C91

VARIABLE(S) ENTERED ON STEP NUMBER 6.. P13

MULTIPLE R		ANALYSIS OF VARIANCE		MEAN SQUARE		F		P	
R SQUARE	0.57452	REGRESSION	DF	SUM OF SQUARES	510.19215	7.06222	0.0000		
ADJUSTED R SQUARE	0.28334	RESIDUAL	86.	6212.85380	72.24249				
STANDARD ERROR	8.49956								

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-8.550177	-0.40475	2.38801	12.820	P1	-0.01443	-0.01276	0.52323	0.014
P16	-0.3187106E-01	-0.44673	0.00841	14.369	P2	0.01863	0.01304	0.32810	0.014
P4	0.4366031E-03	0.29116	0.00019	5.429	P3	0.01476	0.01642	0.82947	0.023
R5	-4.946763	-0.14788	3.13535	2.489	P5	0.01342	0.01559	0.90432	0.021
P8	-38.98998	-0.22077	19.43823	4.023	P6	0.05977	0.06458	0.78221	0.356
P13	0.4060132E-03	0.16618	0.00023	3.102	P7	0.04511	0.04880	0.78398	0.203
(CONSTANT)	20.82800				P9	-0.16987	-0.10217	0.24237	0.897

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P10	0.01187	0.00740	0.26012	0.005
P11	-0.06776	-0.07609	0.84492	0.495
P12	0.01180	0.01327	0.84673	0.015
P14	-0.00018	-0.00018	0.66406	0.000
P15	0.04658	0.04268	0.56252	0.155
P17	-0.06016	-0.03813	0.26909	0.124
P18	-0.07391	-0.06187	0.46945	0.327
P19	0.04788	0.01544	0.06970	0.020
P20	-0.17376	-0.09599	0.20442	0.790
P21	0.02070	0.02277	0.81056	0.014
P22	0.02438	0.02676	0.80741	0.061
P23	0.02671	0.02907	0.79352	0.072
P24	0.02327	0.02550	0.80488	0.055
R1	-0.02589	-0.02789	0.77736	0.066
R2	-0.00029	-0.00033	0.84545	0.000
R3	0.07005	0.08307	0.94208	0.591
R4	-0.06776	-0.08083	0.95324	0.559
R6	0.02653	0.03124	0.92910	0.083
R7	-0.03518	-0.03987	0.86058	0.135

* * * * * M U L T I P L E R E G R E S S I O N * * * * *

DEPENDENT VARIABLE.. C91

VARIABLE LIST 1
REGRESSION LIST 6

SUMMARY TABLE						
VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.34276	0.11748	0.11748	-0.34276	-5.931061	-0.28077
P16	0.42978	0.18471	0.06723	-0.03345	-0.1653447E-01	-0.23176
P4	0.51647	0.26674	0.08203	0.28501	0.7174575E-03	0.47845
R5	0.53518	0.28642	0.01968	-0.07935	-7.002674	-0.20934
P8	0.55309	0.30591	0.01949	-0.33442	-135.6880	-0.76830
P13	0.57452	0.33008	0.02417	0.04729	0.5657992E-03	0.23158
P9	0.58058	0.33707	0.00699	0.30256	53.07885	0.34878
R4	0.58570	0.34304	0.00597	0.00238	-3.768948	-0.13714
P6	0.58816	0.34593	0.00288	-0.09885	0.1725479	0.08713
P5	0.59036	0.34853	0.00260	0.10680	0.1970324E-02	0.00110
R3	0.59274	0.35134	0.00282	0.13794	1.218113	0.04933
P12	0.59689	0.35627	0.00493	-0.03744	0.8703779E-02	0.15152
P18	0.59951	0.35941	0.00314	0.05641	-0.1486642E-01	-0.35611
P7	0.60463	0.36558	0.00617	0.10891	35.44349	0.31629
P19	0.61012	0.37225	0.00667	-0.29318	0.2502464E-01	0.29664
P17	0.61200	0.37454	0.00229	-0.01868	-0.3563087E-01	-1.13249
P10	0.63192	0.39932	0.02478	-0.00032	0.4862621E-01	1.56431
P20	0.63740	0.40628	0.00697	0.19548	-0.6301601E-01	-1.03449
P23	0.63927	0.40866	0.00238	0.22891	0.5090422E-02	1.27319
R7	0.65013	0.42268	0.01401	0.09388	-23.72463	-0.36896
P21	0.65798	0.43294	0.01027	0.22096	-0.1925129E-02	-0.86922
R1	0.66017	0.43582	0.00288	-0.24056	-2.190002	-0.08448
P14	0.66154	0.43764	0.00181	-0.21463	0.1964900E-01	0.08317
P3	0.66302	0.43959	0.00196	0.00153	-3.087782	-0.05154
P15	0.66384	0.44069	0.00109	0.09042	0.1036006E-01	0.07393
P11	0.66449	0.44155	0.00086	0.00640	0.3094208E-02	0.05004
P2	0.66466	0.44178	0.00023	-0.02695	0.9849876	0.03298
(CONSTANT)					-17.47064	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C107
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P2
VARIABLE LIST 1
REGRESSION LIST 7

MULTIPLE R		ANALYSIS OF VARIANCE		OF		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.64132	REGRESSION	9.			1386.93998		154.10444		6.44291		0.0000	
ADJUSTED R SQUARE	0.34745	RESIDUAL	83.			1985.23068		23.91844					
STANDARD ERROR	4.89065												

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
R2	6.890413	0.40668	1.53318	20.198	P1	-0.00863	-0.00617	0.30106	0.003
P16	-0.1480172E-01	-0.34407	0.00680	4.743	P3	-0.04201	-0.04724	0.74463	0.183
P4	0.4381237E-03	0.48452	0.00016	7.931	P5	-0.02952	-0.03377	0.77025	0.094
R3	2.092119	0.14049	1.33930	2.440	P6	-0.08768	-0.09092	0.63301	0.683
P8	28.95700	0.27191	12.70250	5.197	P7	-0.09534	-0.09327	0.56343	0.720
JUR	-5.598882	-0.43954	1.64594	11.571	P10	0.15581	0.07400	0.13279	0.451
P15	-0.1563952E-01	-0.18509	0.00984	2.527	P11	0.09518	0.10029	0.65367	0.833
P9	-22.00314	-0.23977	15.63406	1.981	P12	0.02914	0.03249	0.73203	0.087
P2	3.328103	0.18477	2.64598	1.582	P13	0.03472	0.03847	0.72247	0.122
(CONSTANT)	5.211057				P14	-0.00026	-0.00027	0.63767	0.000

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P17	0.21741	0.11356	0.16062	1.071
P18	-0.07138	-0.06336	0.46376	0.330
P19	0.34682	0.09317	0.04249	0.718
P20	0.08375	0.01955	0.03209	0.031
P21	0.03846	0.04441	0.78480	0.162
P22	0.04377	0.05053	0.78446	0.210
P23	0.04041	0.04622	0.77031	0.176
P24	0.04044	0.04657	0.78057	0.178
R1	0.11209	0.11655	0.63650	1.129
R4	-0.02021	-0.02408	0.83640	0.048
R5	-0.07282	-0.08574	0.81626	0.607
R6	-0.02089	-0.02402	0.77812	0.047
R7	0.02067	0.02454	0.83009	0.049

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C107
VARIABLE LIST 1
REGRESSION LIST 7

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
R2	0.37931	0.14387	0.14387	0.37931	6.297745	0.37170
P16	0.45935	0.21101	0.06713	-0.26334	-0.1418863E-01	-0.32981
P4	0.50843	0.25850	0.04750	-0.04859	0.3990054E-03	0.44126
R3	0.54017	0.29179	0.03329	0.12926	2.860978	0.19212
P8	0.56646	0.32088	0.02909	0.17673	-2.572968	-0.02416
JUR	0.60541	0.36653	0.04565	-0.04530	-4.972815	-0.39039
P15	0.62222	0.38716	0.02064	-0.18384	-0.1908703E-01	-0.22589
P9	0.63251	0.40007	0.01291	-0.11516	6.720915	0.07324
P2	0.64132	0.41129	0.01122	0.22843	1.679740	0.09326
R1	0.64752	0.41929	0.00800	-0.09985	2.077505	0.13290
P17	0.65253	0.42580	0.00651	-0.12140	0.4322225E-02	0.22782
P6	0.65894	0.43420	0.00841	-0.04620	-0.1996957	-0.16723
P18	0.66190	0.43811	0.00390	-0.20546	-0.8877648E-03	-0.03527
P19	0.66462	0.44172	0.00362	0.13093	0.1052323E-01	0.20686
P14	0.66720	0.44516	0.00343	-0.08160	-0.1295010E-01	-0.09090
P1	0.66913	0.44774	0.00258	-0.20841	-0.7494442E-03	-0.26585
P5	0.67093	0.45015	0.00241	-0.07449	-0.5043439E-01	-0.04678
P13	0.67265	0.45246	0.00232	0.11882	0.5327717E-04	0.03616
R5	0.67396	0.45422	0.00176	-0.18726	-0.7182726	-0.03561
P20	0.67480	0.45535	0.00113	-0.15765	-0.1882328E-01	-0.051245
P22	0.67561	0.45645	0.00110	0.10871	0.1698716E-01	7.02591
P21	0.68025	0.46274	0.00629	0.10400	-0.5604204E-02	-4.19628
P23	0.68757	0.47276	0.01002	0.10750	-0.6369838E-02	-2.64208
R7	0.69128	0.47786	0.00510	0.05263	-7.490129	-0.19317
P3	0.69167	0.47841	0.00055	0.13380	1.916984	0.05307
P7	0.69216	0.47909	0.00068	-0.08433	-2.755852	-0.04078
P12	0.69235	0.47935	0.00027	-0.06004	0.9388815E-03	0.02711
P11	0.69256	0.47965	0.00029	0.01731	0.1194425E-02	0.03203
R6	0.69274	0.47989	0.00024	-0.13268	0.3857560	0.02468
P10	0.69289	0.48010	0.00021	-0.13307	0.2468345E-02	0.13169
(CONSTANT)					-0.3608201	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=O=PUBLIC--=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C116
VARIABLE(S) ENTERED ON STEP NUMBER 8.. P17
MULTIPLE R 0.44554
R SQUARE 0.19851
ADJUSTED R SQUARE 0.12218
STANDARD ERROR 2.06664

ANALYSIS OF VARIANCE
REGRESSION 8.
RESIDUAL 84.
SUM OF SQUARES 88.85593
MEAN SQUARE 11.10699
358.76329 4.27099
F 2.60056
P 0.0137

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P14	0.2144812E-01	0.41321	0.00606	12.535	P1	-0.05707	-0.03424	0.28842	0.097
R4	0.5687747	0.09420	0.62797	0.820	P4	0.15452	0.11022	0.40782	1.021
P2	-1.549532	-0.23613	0.81632	3.603	P5	-0.00070	-0.00075	0.91918	0.000
P18	-0.1659833E-02	-0.18097	0.00123	1.813	P7	-0.00223	-0.00153	0.37909	0.000
R1	-0.9635595	-0.16919	0.61709	2.438	P8	-0.02949	-0.02412	0.53655	0.048
P3	-2.944080	-0.22370	1.71780	2.937	P9	0.03573	0.02817	0.49843	0.066
P6	0.9776665E-01	0.22472	0.05594	3.054	P10	0.03344	0.00522	0.03975	0.002
P17	-0.1147345E-02	-0.16599	0.00105	1.195	P11	-0.00640	-0.00513	0.51490	0.002
(CONSTANT)	6.645784				P12	-0.04667	-0.04370	0.70270	0.159

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P13	-0.07858	-0.08332	0.90091	0.580
P15	-0.03689	-0.02518	0.37340	0.053
P16	-0.01887	-0.00873	0.17164	0.006
P19	-0.06041	-0.04729	0.49115	0.186
P20	0.10441	0.06357	0.29710	0.337
P21	0.03645	0.03789	0.86587	0.119
P22	0.04157	0.04322	0.86654	0.155
P23	0.05316	0.05516	0.86282	0.253
P24	0.04224	0.04389	0.86532	0.160
JUR	0.02572	0.01953	0.46189	0.032
R2	-0.00388	-0.00398	0.84454	0.001
R3	-0.00253	-0.00254	0.81092	0.001
R5	-0.04251	-0.04417	0.86528	0.162
R6	0.03736	0.03809	0.83340	0.121
R7	0.00805	0.00846	0.88431	0.006

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C116 REGRESSION LIST 8

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P14	0.28681	0.08226	0.08226	0.28681	0.1814761E-01	0.34962
R4	0.33476	0.11206	0.02980	0.14814	0.2239456	0.03709
P2	0.35643	0.12704	0.01498	-0.09901	-2.955771	-0.45042
P18	0.38515	0.14834	0.02130	-0.02661	-0.1989522E-02	-0.21692
R1	0.40061	0.16048	0.01215	-0.05529	-1.162022	-0.20403
P3	0.40999	0.16810	0.00761	-0.13866	-2.991839	-0.22733
P6	0.43256	0.18711	0.01901	0.06142	0.1222168	0.28092
P17	0.44554	0.19851	0.01140	0.09838	0.1943353E-02	0.28115
P4	0.45634	0.20825	0.00974	0.05494	0.7459992E-04	0.22644
P13	0.46052	0.21208	0.00383	-0.09225	-0.5721159E-04	-0.10659
R5	0.46425	0.21553	0.00345	-0.05373	-0.7748647	-0.10544
JUR	0.46899	0.21995	0.00442	0.04556	0.5332419	0.11490
P9	0.47204	0.22282	0.00287	-0.04341	-30.26064	-0.90509
P20	0.47771	0.22821	0.00539	0.01887	0.1695336E-01	1.26680
P16	0.48755	0.23770	0.00949	0.09070	-0.4877831E-02	-0.31121
P5	0.48957	0.23967	0.00197	-0.10359	0.1196587E-01	0.03046
P10	0.49212	0.24219	0.00251	0.09249	-0.4983948E-02	-0.72980
P8	0.49529	0.24532	0.00313	0.09565	5.348896	0.13786
P12	0.49705	0.24706	0.00174	0.03640	-0.1314952E-02	-0.10420
R3	0.49945	0.24945	0.00239	0.01957	-0.2956290	-0.05449
R7	0.50152	0.25152	0.00207	-0.09532	-3.755500	-0.26584
P23	0.50786	0.25792	0.00640	-0.07565	0.2923630E-02	3.32843
P22	0.52652	0.27723	0.01931	-0.08464	-0.3636474E-02	-4.12822
P1	0.52911	0.27996	0.00273	-0.01062	0.1494327E-03	0.14550
P11	0.53062	0.28155	0.00160	-0.02510	-0.1056320E-02	-0.07776
P21	0.53168	0.28269	0.00113	-0.08823	0.5102232E-03	1.04860
P7	0.53221	0.28325	0.00057	-0.11561	-1.295703	-0.05263
P15	0.53272	0.28379	0.00053	0.03647	-0.1312135E-02	-0.04262
R2	0.53292	0.28401	0.00022	-0.04514	0.1397047	0.02263
(CONSTANT)					14.35747	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C125
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P19
VARIABLE LIST 1
REGRESSION LIST 9

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.65573	REGRESSION		11.	651.09783	59.19071	5.55457	0.0000
ADJUSTED R SQUARE	0.35257	RESIDUAL		81.	863.15356	10.65622		
STANDARD ERROR	3.26439							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-3.432617	-0.40214	1.15577	8.821	P1	-0.14508	-0.10330	0.28898	0.863
P16	-0.3901212E-02	-0.13533	0.00690	0.320	P3	-0.10647	-0.12467	0.78152	1.263
P8	20.96587	0.29379	37.03764	0.320	P4	-0.03363	-0.02069	0.21575	0.034
P17	0.3769367E-02	0.29649	0.00556	0.460	P5	0.04453	0.05235	0.78768	0.220
P20	-0.7122308E-01	-2.89354	0.02160	10.870	P6	0.05672	0.05980	0.63359	0.287
R5	-2.341988	-0.17326	1.20960	3.749	P7	-0.05552	-0.05402	0.53973	0.234
P13	0.1674253E-03	0.16959	0.00009	3.407	P11	0.07853	0.06973	0.44936	0.391
P2	5.331274	0.44170	2.05813	6.710	P12	0.10819	0.12320	0.73911	1.233
P9	102.1254	1.66075	37.33824	7.481	P14	-0.06125	-0.06119	0.56899	0.301
P10	0.1862762E-01	1.48301	0.00856	4.738	P15	0.08970	0.06741	0.32184	0.365
P19	-0.3818602E-01	-1.12020	0.02073	3.395	P18	-0.09422	-0.08377	0.45056	0.565
(CONSTANT)	-27.55033				P21	0.06256	0.07373	0.79173	0.437

P22	0.06929	0.08168	0.79227	0.537
P23	0.07796	0.09132	0.78216	0.673
P24	0.06847	0.08056	0.78906	0.523
R1	0.05642	0.06492	0.75459	0.339
R2	-0.04446	-0.05334	0.82040	0.228
R3	-0.06478	-0.08194	0.91198	0.541
R4	-0.01241	-0.01584	0.92940	0.020
R6	0.04971	0.06136	0.86843	0.302
R7	0.06229	0.07588	0.84591	0.463

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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DEPENDENT VARIABLE.. C125

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 9

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.35295	0.12457	0.12457	-0.35295	-3.631053	-0.42538
P16	0.45240	0.20467	0.08009	-0.04792	0.3191186E-02	0.11070
P8	0.48541	0.23562	0.03096	-0.28428	-20.21027	-0.28320
P17	0.52091	0.27135	0.03572	0.03733	-0.1790147E-02	-0.14081
P20	0.55413	0.30706	0.03571	0.07902	-0.6990479E-01	-2.83998
R5	0.57824	0.33436	0.02731	-0.14487	-1.844044	-0.13642
P13	0.59675	0.35611	0.02175	0.02662	0.2737814E-03	0.27732
P2	0.61225	0.37485	0.01874	-0.00321	3.909443	0.32390
P9	0.62694	0.39305	0.01820	0.16960	97.55045	1.58635
P10	0.63725	0.40609	0.01304	0.01662	0.1990787E-01	1.58494
P19	0.65573	0.42998	0.02389	-0.22153	-0.2142702E-01	-0.62857
P3	0.66245	0.43884	0.00886	-0.07597	-4.004171	-0.16542
P6	0.67253	0.45229	0.01345	-0.00524	0.1516354	0.18950
P18	0.67868	0.46061	0.00831	-0.01538	-0.4042126E-02	-0.23962
P12	0.68381	0.46759	0.00699	-0.00034	0.2363669E-02	0.10183
P23	0.68691	0.47184	0.00425	0.16657	0.1950222E-02	1.20714
P21	0.69404	0.48169	0.00984	0.15526	-0.9247560E-03	-1.03332
R4	0.69715	0.48602	0.00433	0.03948	-0.4234310	-0.03813
P11	0.69849	0.48788	0.00187	0.14708	0.2249753E-02	0.09004
P1	0.70037	0.49052	0.00264	0.02006	-0.2714835E-03	-0.14372
R7	0.70174	0.49244	0.00191	0.09359	-2.166423	-0.08338
R1	0.70256	0.49358	0.00115	-0.09713	0.7732767	0.07382
P15	0.70333	0.49467	0.00109	0.14823	-0.4350952E-02	-0.07684
R6	0.70398	0.49559	0.00092	0.14204	0.5097578	0.04866
P7	0.70445	0.49625	0.00066	-0.01892	2.425078	0.05356
R3	0.70454	0.49637	0.00012	-0.05229	0.1732162	0.01736
P14	0.70459	0.49645	0.00008	-0.23663	0.1331028E-02	0.01394
(CONSTANT)					-17.02311	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE.= 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C134
VARIABLE(S) ENTERED ON STEP NUMBER 10.. P10
VARIABLE LIST 1
REGRESSION LIST 10

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.58900	REGRESSION	10.	470.01981	47.00198	4.35585	0.0001				
ADJUSTED R SQUARE	0.26727	RESIDUAL	82.	884.82518	10.79055						
STANDARD ERROR	3.28490										

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-3.083580	-0.38191	1.12959	7.452	P2	0.16862	0.08757	0.17615	0.62
P16	0.3648669E-02	0.13381	0.00617	0.350	P3	-0.06982	-0.06439	0.55544	0.33
P6	0.1123985	0.14850	0.08258	1.853	P4	0.06033	0.03522	0.22259	0.10
P9	85.47226	1.46943	31.43158	7.395	P5	0.02747	0.03181	0.87559	0.08
P20	-0.4729189E-01	-2.03118	0.01723	7.536	P7	0.03655	0.03376	0.55729	0.09
P11	0.4070772E-02	0.17224	0.00292	1.939	P12	0.08082	0.08779	0.77054	0.62
P1	-0.4860657E-03	-0.27203	0.00025	3.818	P14	-0.01013	-0.00912	0.53004	0.00
P13	0.1349208E-03	0.14448	0.00009	2.069	P15	-0.00986	-0.00686	0.31689	0.00
P8	-19.14654	-0.28364	10.68944	3.208	P17	-0.15102	-0.03329	0.03174	0.09
P10	0.5997277E-02	0.50477	0.00420	2.038	P18	-0.02945	-0.02489	0.46650	0.05
(CONSTANT)	-6.848998				P19	-0.66400	-0.11355	0.01910	1.05

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P2	0.16862	0.08757	0.17615	0.626
P3	-0.06982	-0.06439	0.55544	0.337
P4	0.06033	0.03522	0.22259	0.101
P5	0.02747	0.03181	0.87559	0.082
P7	0.03655	0.03376	0.55729	0.092
P12	0.08082	0.08779	0.77054	0.629
P14	-0.01013	-0.00912	0.53004	0.007
P15	-0.00986	-0.00686	0.31689	0.004
P17	-0.15102	-0.03329	0.03174	0.090
P18	-0.02945	-0.02489	0.46650	0.050
P19	-0.66400	-0.11355	0.01910	1.058
P21	0.07965	0.08803	0.79773	0.633
P22	0.09017	0.09966	0.79770	0.813
P23	0.10054	0.11054	0.78944	1.002
P24	0.08801	0.09713	0.79542	0.771
R1	-0.01910	-0.02027	0.73527	0.033
R2	-0.01570	-0.01746	0.80726	0.025
R3	-0.00451	-0.00532	0.90872	0.002
R4	0.04051	0.04919	0.96286	0.196
R5	-0.10034	-0.11678	0.88455	1.120
R6	0.03644	0.04340	0.92597	0.153
R7	0.08326	0.09521	0.85406	0.741

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
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DEPENDENT VARIABLE.. C134

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 10

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.40687	0.16555	0.16555	-0.40687	-2.707341	-0.33531
P16	0.46221	0.21364	0.04809	0.03481	0.8881408E-02	0.32570
P6	0.48406	0.23432	0.02068	0.10388	0.1903922	0.25154
P9	0.50118	0.25118	0.01687	0.24231	108.4205	1.86396
P20	0.51923	0.26960	0.01842	0.13967	-0.6631420E-01	-2.84819
P11	0.53449	0.28568	0.01608	0.18174	0.4887314E-02	0.20679
P1	0.55018	0.30270	0.01701	0.10681	-0.1947433E-03	-0.10899
P13	0.56467	0.31885	0.01615	0.01387	0.1868923E-03	0.20013
P8	0.57506	0.33069	0.01184	-0.19656	8.248608	0.12220
P10	0.58900	0.34692	0.01623	0.07742	0.1592926E-01	1.34071
R5	0.59651	0.35582	0.00891	-0.11364	-1.902537	-0.14880
P19	0.60641	0.36774	0.01192	-0.12293	-0.1967062E-01	-0.61004
P23	0.61272	0.37542	0.00768	0.19577	0.1997588E-02	1.30717
P21	0.62467	0.39021	0.01479	0.18789	-0.9514681E-03	-1.12397
P2	0.63006	0.39698	0.00677	-0.11906	2.273554	0.19914
P12	0.63457	0.40268	0.00570	-0.01202	0.2630644E-02	0.11982
R7	0.63595	0.40443	0.00175	0.11995	-2.571205	-0.10462
P17	0.63709	0.40588	0.00145	0.08813	-0.4627757E-02	-0.38483
P18	0.63811	0.40718	0.00130	0.06178	-0.2201849E-02	-0.13799
P7	0.63909	0.40843	0.00125	0.01053	4.157832	0.09708
R1	0.64010	0.40973	0.00129	-0.15085	-0.6614351	-0.06675
R2	0.64118	0.41112	0.00139	0.03688	-0.3290473	-0.03064
P15	0.64175	0.41185	0.00073	0.20751	0.3203281E-02	0.05981
P4	0.64223	0.41245	0.00061	0.14413	0.3670687E-04	0.06404
P14	0.64270	0.41307	0.00062	-0.24560	0.3520670E-02	0.03899
R4	0.64298	0.41343	0.00036	0.06134	-0.2459337	-0.02341
P3	0.64314	0.41363	0.00021	-0.01349	-0.5385176	-0.02352
(CONSTANT)					-21.67510	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
JUNIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C155

VARIABLE LIST 1
REGRESSION LIST 11

VARIABLE(S) ENTERED ON STEP NUMBER 6.. R3

MULTIPLE R	0.43563	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.18978	REGRESSION	6.	30.77612	5.12935	3.35723	0.0051
ADJUSTED R SQUARE	0.13325	RESIDUAL	86.	131.39516	1.52785		
STANDARD ERROR	1.23606						

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P18	0.1581469E-02	0.28647	0.00065	5.848	P1	0.02117	0.01883	0.64137	0.030
P5	0.5536718E-01	0.23419	0.02386	5.383	P2	-0.07955	-0.06322	0.51180	0.341
P9	-7.079837	-0.35181	2.59965	7.417	P3	-0.10016	-0.10207	0.84156	0.895
JUR	-0.6284517	-0.22497	0.32911	3.646	P4	-0.07591	-0.04084	0.23456	0.142
R1	-0.6071474	-0.17711	0.36494	2.768	P6	0.00445	0.00466	0.89135	0.002
R3	-0.4768009	-0.14600	0.32844	2.107	P7	-0.05979	-0.05880	0.78367	0.295
(CONSTANT)	-1.254276				P8	0.06425	0.05456	0.58432	0.254

P1	0.02117	0.01883	0.64137	0.030
P2	-0.07955	-0.06322	0.51180	0.341
P3	-0.10016	-0.10207	0.84156	0.895
P4	-0.07591	-0.04084	0.23456	0.142
P6	0.00445	0.00466	0.89135	0.002
P7	-0.05979	-0.05880	0.78367	0.295
P8	0.06425	0.05456	0.58432	0.254
P10	0.05869	0.04827	0.54806	0.199
P11	0.11465	0.10981	0.74325	1.037
P12	0.08781	0.08682	0.79209	0.646
P13	-0.06908	-0.07350	0.91744	0.462
P14	0.00437	0.00437	0.80692	0.002
P15	0.00341	0.00312	0.67894	0.001
P16	0.00734	0.00536	0.43136	0.002
P17	0.01875	0.01531	0.53991	0.020
P19	0.04516	0.04327	0.74368	0.159
P20	0.13069	0.04603	0.10050	0.180
P21	-0.01912	-0.01959	0.85025	0.033
P22	-0.01911	-0.01958	0.85088	0.033
P23	-0.02028	-0.02079	0.85165	0.037
P24	-0.01946	-0.01994	0.85047	0.034
R2	0.05348	0.05371	0.81719	0.246
R4	-0.03378	-0.03510	0.87466	0.105
R5	0.01813	0.01878	0.86952	0.030
R6	-0.02005	-0.02022	0.82382	0.035
R7	-0.02281	-0.02385	0.88535	0.048

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
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DEPENDENT VARIABLE.. C155
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 11

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P18	0.22269	0.04959	0.04959	0.22269	0.1549596E-02	0.28070
P5	0.28254	0.07983	0.03024	0.15002	0.5312295E-01	0.22470
P9	0.33550	0.11256	0.03274	-0.00347	-12.15078	-0.60379
JUR	0.39064	0.15260	0.04004	-0.20735	-0.4899490	-0.17539
R1	0.41221	0.16992	0.01732	-0.13095	-0.7211817	-0.21038
R3	0.43563	0.18978	0.01985	-0.13552	-0.3779688	-0.11574
P11	0.44670	0.19955	0.00977	0.08295	0.1040902E-02	0.12730
P3	0.45330	0.20548	0.00593	-0.18486	-1.179557	-0.14890
R2	0.45720	0.20903	0.00355	0.14855	0.3640592	0.09798
P13	0.46361	0.21493	0.00590	-0.05725	-0.2990847E-04	-0.09257
P8	0.46668	0.21779	0.00286	-0.04303	0.7098889	0.03040
P2	0.46975	0.22066	0.00287	-0.21884	-0.7346501	-0.18599
P17	0.47368	0.22437	0.00371	0.07976	-0.3719162E-02	-0.89392
P10	0.49228	0.24234	0.01796	0.10092	0.2600511E-02	0.63264
P12	0.49817	0.24817	0.00584	0.07761	0.7379887E-03	0.09716
P6	0.50055	0.25055	0.00237	-0.03894	0.1799668E-01	0.06872
R4	0.50222	0.25223	0.00168	0.04027	-0.1761939	-0.04848
P16	0.50330	0.25331	0.00108	0.15063	-0.1492119E-02	-0.15816
P20	0.50453	0.25455	0.00125	0.02760	0.2975488E-02	0.36938
R7	0.50536	0.25538	0.00083	-0.07807	-0.2135776	-0.02512
P15	0.50578	0.25581	0.00043	0.05404	0.9014339E-03	0.04865
P14	0.50610	0.25614	0.00032	-0.10035	0.8929692E-03	0.02858
P21	0.50633	0.25637	0.00024	-0.06559	0.8485307E-04	0.28973
P23	0.50711	0.25716	0.00078	-0.05999	-0.1530155E-03	-0.28941
(CONSTANT)					-0.1353599	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C15
VARIABLE(S) ENTERED ON STEP NUMBER 7.. R1
VARIABLE LIST 1
REGRESSION LIST 1

MULTIPLE R	0.79329	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.62930	REGRESSION		7.	12280.17905	1754.31129	20.61396	0.0000
ADJUSTED R SQUARE	0.59877	RESIDUAL		85.	7233.76183	85.10308		
STANDARD ERROR	9.22513							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-10.65950	-0.34787	2.38876	19.913	P1	0.04376	0.05745	0.63902	0.27
P13	-0.1758719E-02	-0.49625	0.00024	51.872	P2	0.09290	0.10675	0.48948	0.96
P3	24.83099	0.28576	6.24926	15.788	P4	-0.10186	-0.12032	0.51729	1.23
P18	0.1722452E-01	0.28443	0.00483	12.726	P6	0.03341	0.04571	0.69399	0.17
P5	0.4709332	0.18159	0.17403	7.323	P7	0.09741	0.13879	0.75242	1.65
P23	0.7030109E-03	0.12122	0.00039	3.251	P8	-0.07676	-0.09863	0.61199	0.82
R1	-4.259809	-0.11328	2.60204	2.680	P9	-0.04861	-0.05650	0.50078	0.26
(CONSTANT)	-18.89913				P10	-0.01112	-0.01376	0.56825	0.01

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P10	-0.01112	-0.01376	0.56825	0.016
P11	-0.00486	-0.00736	0.84994	0.005
P12	-0.08363	-0.12113	0.77768	1.251
P14	-0.05753	-0.08442	0.79840	0.603
P15	0.07410	0.09767	0.64398	0.809
P16	-0.13442	-0.14127	0.40940	1.710
P17	0.03549	0.04317	0.54837	C.157
P19	-0.04276	-0.05862	0.69654	0.290
P20	-0.07553	-0.08863	0.51038	0.665
P21	-0.31025	-0.06104	0.01435	0.314
P22	-0.67223	-0.08153	0.00545	0.562
P24	-0.54500	-0.06728	0.00565	0.382
R2	0.03189	0.04743	0.81995	0.189
R3	-0.01216	-0.01905	0.90989	0.030
R4	0.02322	0.03609	0.89516	0.110
R5	-0.05998	-0.09477	0.92538	0.761
R6	0.01372	0.02127	0.89070	0.038
R7	-0.04347	-0.02981	0.17434	0.075

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C15

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.55745	0.31075	0.31075	-0.55745	-5.155387	-0.16824
P13	0.69653	0.48515	0.17440	-0.51674	-0.2034653E-02	-0.57411
P3	0.72313	0.52291	0.03776	0.06443	17.54061	0.20186
P18	0.75449	0.56926	0.04635	0.31693	0.9631856E-02	0.15905
P5	0.77543	0.60129	0.03203	0.11497	0.2380469	0.09179
P23	0.78588	0.61761	0.01633	0.21560	0.1139395E-01	1.96460
R1	0.79329	0.62930	0.01169	-0.20641	-6.441970	-0.17131
P16	0.79794	0.63670	0.00740	0.20872	-0.3150198E-01	-0.30440
P17	0.80395	0.64633	0.00963	0.12834	0.5004557E-01	1.09657
P7	0.82089	0.67386	0.02753	0.28941	38.65533	0.23781
P12	0.82840	0.68625	0.01239	-0.17367	-0.1150390E-01	-0.13806
P1	0.83325	0.69430	0.00805	0.32879	0.2158267E-02	0.31827
P11	0.83959	0.70492	0.01062	0.10817	-0.2297714E-01	-0.25616
P2	0.84590	0.71554	0.01063	-0.26923	16.20726	0.37406
P4	0.85116	0.72448	0.00893	0.21688	-0.6408815E-03	-0.29463
P8	0.86129	0.74182	0.01734	-0.47329	79.07974	0.30869
P22	0.86562	0.74931	0.00748	0.20924	-0.1601485E-01	-2.75351
P21	0.86830	0.75395	0.00465	0.20390	0.3136135E-02	0.97618
R5	0.87038	0.75757	0.00361	0.00246	-4.663068	-0.09610
P14	0.87298	0.76210	0.00453	-0.23810	-0.3989806E-01	-0.11642
P15	0.87429	0.76439	0.00229	0.14896	0.3366194E-01	0.16561
R2	0.87632	0.76794	0.00355	-0.04316	2.444556	0.05998
P9	0.87727	0.76960	0.00166	0.34066	165.6809	0.75053
P20	0.87963	0.77375	0.00415	0.26004	-0.8162686E-01	-0.92378
P19	0.88141	0.77689	0.00314	-0.37911	-0.6975035E-01	-0.56998
R7	0.88213	0.77815	0.00126	0.11946	-9.767636	-0.10472
P6	0.88279	0.77931	0.00116	-0.04428	-0.1719161	-0.05985
P10	0.88316	0.77996	0.00065	0.11541	0.1064017E-01	0.23597
R3	0.88323	0.78009	0.00012	0.06208	-0.5087431	-0.01420
(CONSTANT)					-97.95071	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C31
VARIABLE(S) ENTERED ON STEP NUMBER 10.. P14
VARIABLE LIST 1
REGRESSION LIST 2

MULTIPLE R	0.78018	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.60868	REGRESSION	10.	15765.45309	1576.54531	12.75448	0.0000	
ADJUSTED R SQUARE	0.56095	RESIDUAL	82.	10135.78624	123.60715			
STANDARD ERROR	11.11788							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-8.926827	-0.25286	3.70213	5.814	P1	0.11161	0.12480	0.48930	1.282
P13	-0.1727519E-02	-0.42310	0.00033	27.944	P2	0.07748	0.07145	0.33281	0.416
P8	-35.12526	-0.11901	27.01568	1.690	P4	-0.07006	-0.07117	0.40382	0.412
P3	20.83259	0.20809	7.65908	7.398	P6	-0.00166	-0.00178	0.44753	0.000
P18	0.2731697E-01	0.39154	0.00713	14.662	P7	0.11839	0.11941	0.39808	1.172
P16	-0.3148115E-01	-0.26404	0.01384	5.172	P9	-0.04230	-0.04254	0.39588	0.147
P5	0.4711049	0.15768	0.21772	4.682	P10	0.06053	0.03965	0.16787	0.128
R1	-7.189122	-0.16594	3.47326	4.284	P11	-0.04986	-0.07013	0.77404	0.400
P15	0.4503070E-01	0.19229	0.02171	4.302	P12	-0.04413	-0.06103	0.74833	0.303
P14	-0.5948234E-01	-0.15065	0.03287	3.275	P17	0.14251	0.09616	0.17816	0.756
(CONSTANT)	-20.82462				P19	0.24516	0.07545	0.03707	0.464

P19	0.24516	0.07545	0.03707	0.464	P19	0.24516	0.07545	0.03707	0.464
P20	-0.06381	-0.05738	0.31652	0.268	P20	-0.06381	-0.05738	0.31652	0.268
P21	0.06624	0.09906	0.87528	0.803	P21	0.06624	0.09906	0.87528	0.803
P22	0.07111	0.10648	0.87749	0.929	P22	0.07111	0.10648	0.87749	0.929
P23	0.07465	0.11128	0.86965	1.016	P23	0.07465	0.11128	0.86965	1.016
P24	0.06982	0.10437	0.87446	0.892	P24	0.06982	0.10437	0.87446	0.892
R2	-0.03610	-0.05047	0.76489	0.207	R2	-0.03610	-0.05047	0.76489	0.207
R3	0.02028	0.03055	0.88842	0.076	R3	0.02028	0.03055	0.88842	0.076
R4	0.02020	0.03053	0.89382	0.076	R4	0.02020	0.03053	0.89382	0.076
R5	-0.08535	-0.12638	0.85807	1.315	R5	-0.08535	-0.12638	0.85807	1.315
R6	0.02882	0.04296	0.86910	0.150	R6	0.02882	0.04296	0.86910	0.150
R7	0.05469	0.08289	0.89872	0.560	R7	0.05469	0.08289	0.89872	0.560

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
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DEPENDENT VARIABLE.. C31

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.53584	0.28713	0.28713	-0.53584	-4.482189	-0.12696
P13	0.62564	0.39143	0.10430	-0.41970	-0.1839419E-02	-0.45050
P8	0.66833	0.44666	0.05523	-0.49743	47.64613	0.16143
P3	0.68827	0.47372	0.02706	0.03184	19.78289	0.19761
P18	0.70561	0.49788	0.02416	0.33143	0.1713003E-01	0.24553
P16	0.73450	0.53949	0.04161	0.17265	-0.2975665E-01	-0.24958
P5	0.75028	0.56292	0.02343	0.15464	0.3101430	0.10380
R1	0.75961	0.57701	0.01409	-0.27678	-9.779386	-0.22573
P15	0.77010	0.59305	0.01604	0.12975	0.4150321E-01	0.17723
P14	0.78018	0.60868	0.01563	-0.33414	-0.8681239E-01	-0.21986
R5	0.78417	0.61493	0.00625	0.02055	-5.321914	-0.09520
P1	0.78911	0.62270	0.00777	0.32145	0.2127923E-02	0.27237
P2	0.79963	0.63940	0.01671	-0.24727	18.50940	0.37079
P7	0.80661	0.65061	0.01121	0.30462	29.66838	0.15842
P17	0.81202	0.65938	0.00876	0.07844	0.4024821E-01	0.76547
P11	0.82250	0.67651	0.01713	0.07156	-0.2313261E-01	-0.22385
P4	0.82523	0.68101	0.00450	0.24285	-0.5867397E-03	-0.23413
P23	0.82780	0.68525	0.00425	0.24227	0.8447909E-02	1.26433
P22	0.83147	0.69134	0.00609	0.23395	-0.3006460E-02	-0.44867
P12	0.83322	0.69426	0.00292	-0.14546	-0.7469073E-02	-0.07781
R7	0.83416	0.69582	0.00156	0.14550	-15.59503	-0.14512
P9	0.83472	0.69675	0.00093	0.36410	185.7688	0.73043
P20	0.83753	0.70145	0.00470	0.26092	-0.9949938E-01	-0.97739
P19	0.83811	0.70242	0.00097	-0.40896	-0.6003775E-01	-0.42585
P10	0.83873	0.70346	0.00104	0.07333	0.1946711E-01	0.37474
R2	0.83927	0.70437	0.00091	-0.10332	-2.022482	-0.04307
P6	0.83991	0.70545	0.00108	-0.08198	-0.1761184	-0.05322
P21	0.84017	0.70589	0.00044	0.22567	-0.2220491E-02	-0.59992
R6	0.84030	0.70610	0.00021	0.16134	0.7629854	0.01761
(CONSTANT)					-100.7067	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
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***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C47
VARIABLE(S) ENTERED ON STEP NUMBER 10.. R5
VARIABLE LIST 1
REGRESSION LIST 3

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.81618	REGRESSION	10.	9906.63565	990.66356	16.36232	0.0000				
ADJUSTED R SQUARE	0.62544	RESIDUAL	82.	4964.72321	60.54541						
STANDARD ERROR	7.78109										

VARIABLES IN THE EQUATION											VARIABLES NOT IN THE EQUATION										
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F						
JUR	-4.895200	-0.18300	2.30844	4.497	P1	0.06325	0.08511	0.60436	0.591		P17	0.02823	0.02304	0.22234	0.043						
P13	-0.1428467E-02	-0.46171	0.00022	41.796	P2	0.12446	0.14965	0.48266	1.856		P19	0.01358	0.01709	0.52853	0.024						
P5	0.5574553	0.24623	0.14802	14.183	P4	-0.10652	-0.12295	0.44477	1.243		P20	-0.11025	-0.11881	0.38770	1.160						
P18	0.1281639E-01	0.24244	0.00484	7.006	P6	0.00238	0.00302	0.53896	0.001		P21	0.13468	0.02783	0.01426	0.063						
P3	18.18305	0.23970	5.32644	11.654	P8	-0.02160	-0.02804	0.56238	0.064		P22	0.01469	0.02157	0.00537	0.038						
P23	0.8429898E-03	0.16650	0.00033	6.444	P9	-0.06701	-0.07887	0.46247	0.507		P24	0.16618	-0.01075	0.00562	0.038						
R1	-7.929671	-0.24156	2.37637	11.135	P10	-0.01423	-0.01104	0.20084	0.010		R2	-0.00714	-0.01075	0.75748	0.009						
P15	0.5304336E-01	0.29893	0.01809	8.597	P11	0.00335	-0.00478	0.67956	0.002		R3	0.02412	0.03881	0.86430	0.122						
P7	28.61531	0.20166	13.07028	4.793	P12	-0.07139	-0.10439	0.71389	0.892		R4	-0.00906	-0.01438	0.84096	0.017						
R5	-4.714554	-0.11130	2.89435	2.653	P14	-0.10456	-0.14253	0.62032	1.680		R6	-0.00233	-0.00370	0.84270	0.001						
(CONSTANT)	-46.86536				P16	-0.15575	-0.15848	0.34563	2.087		R7	-0.13649	-0.09716	0.16917	0.772						

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
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DEPENDENT VARIABLE.. C47
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.54333	0.29521	0.29521	-0.54333	-1.926069	-0.07200
P13	0.63761	0.40655	0.11134	-0.43165	-0.1587992E-02	-0.51327
P5	0.67332	0.45336	0.04681	0.18636	0.3403989	0.15036
P18	0.71017	0.50435	0.05098	0.37443	0.1439341E-01	0.27227
P3	0.74626	0.55691	0.05256	0.01794	14.29291	0.18842
P23	0.77283	0.59726	0.04036	0.28305	0.8901666E-02	1.75820
R1	0.79092	0.62555	0.02829	-0.27670	-8.573954	-0.26118
P15	0.79860	0.63776	0.01221	0.19714	0.3541867E-01	0.19961
P7	0.80954	0.65535	0.01759	0.26508	28.01826	0.19745
R5	0.81618	0.66616	0.01080	-0.00100	-4.875226	-0.11509
P16	0.82130	0.67454	0.00838	0.22937	-0.1056888E-01	-0.11699
P1	0.82602	0.68231	0.00777	0.30009	0.1532692E-02	0.25890
P2	0.83852	0.70312	0.02081	-0.24552	15.93457	0.42127
P17	0.84155	0.70820	0.00509	0.15609	0.2515098E-01	0.63128
P14	0.84581	0.71539	0.00719	-0.27908	-0.5739946E-01	-0.19185
P11	0.85283	0.72731	0.01192	0.12934	-0.1504569E-01	-0.19215
P12	0.85742	0.73517	0.00786	-0.16294	-0.9147330E-02	-0.12576
P4	0.86070	0.74081	0.00564	0.27325	-0.4240317E-03	-0.22330
P8	0.86290	0.74460	0.00379	-0.46168	28.51511	0.12750
R7	0.86419	0.74682	0.00221	0.18107	-10.04064	-0.12331
P6	0.86539	0.74891	0.00209	-0.05155	-0.2346833	-0.09358
P22	0.86586	0.74971	0.00080	0.27746	-0.1512750E-01	-2.97940
P21	0.86805	0.75350	0.00379	0.27506	0.4169183E-02	1.48656
P19	0.86835	0.75404	0.00053	-0.34887	-0.3490160E-01	-0.32671
P9	0.86861	0.75448	0.00044	0.39011	156.9139	0.81424
P20	0.87196	0.76032	0.00584	0.31043	-0.8854104E-01	-1.14783
P10	0.87425	0.76431	0.00399	0.15827	0.2264867E-01	0.57538
R3	0.87435	0.76448	0.00018	0.10403	0.3729123	0.01192
R2	0.87440	0.76457	0.00009	-0.09157	-0.4683070	-0.01316
(CONSTANT)					-91.51290	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
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DEPENDENT VARIABLE.. C63
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P23
MULTIPLE R 0.83969
R SQUARE 0.70509
ADJUSTED R SQUARE 0.68080
STANDARD ERROR 8.69592
ANALYSIS OF VARIANCE
REGRESSION 7.
RESIDUAL 85.
SUM OF SQUARES
15367.31391
6427.62149
MEAN SQUARE
2195.33056
75.61908
F
29.03144
P
0.0000
VARIABLE LIST 1
REGRESSION LIST 4

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-9.413129	-0.29067	2.25173	17.476	P1	0.08523	0.12545	0.63902	1.343
P13	-0.1958635E-02	-0.52294	0.00023	72.404	P2	0.06726	0.08665	0.48948	0.636
P18	0.2513864E-01	0.39280	0.00455	30.508	P4	-0.07728	-0.10235	0.51729	0.889
P3	22.47128	0.24469	5.89076	14.552	P6	-0.00717	-0.01100	0.69399	0.010
P5	0.5434487	0.19828	0.16404	10.975	P7	0.07862	0.12558	0.75242	1.346
R1	-7.466850	-0.18789	2.45278	9.267	P8	-0.10083	-0.14524	0.61199	1.810
P23	0.6483147E-03	0.10577	0.00037	3.112	P9	-0.05357	-0.06981	0.50078	0.411
(CONSTANT)	-26.73765				P10	-0.02689	-0.03732	0.56825	0.117

P11	-0.05966	-0.10128	0.84994	0.871
P12	-0.03826	-0.06212	0.77768	0.325
P14	-0.07254	-0.11936	0.79840	1.214
P15	0.04058	0.05997	0.64398	0.303
P16	-0.10142	-0.11950	0.40940	1.217
P17	0.00768	0.01048	0.54837	0.009
P19	-0.06883	-0.10578	0.69654	0.950
P20	-0.07780	-0.10235	0.51038	0.889
P21	-0.26855	-0.05924	0.01435	0.296
P22	-0.36824	-0.05007	0.00545	0.211
P24	-0.41757	-0.05779	0.00565	0.281
R2	-0.01887	-0.03146	0.81995	0.083
R3	0.03149	0.05531	0.90989	0.258
R4	0.00735	0.01280	0.89516	0.014
R5	-0.04843	-0.08578	0.92538	0.623
R6	0.01931	0.03355	0.89070	0.095
R7	-0.08839	-0.06796	0.17434	0.390

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
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DEPENDENT VARIABLE.. C63

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.57705	0.33299	0.33299	-0.57705	-3.200568	-0.09883
P13	0.71568	0.51220	0.17922	-0.52612	-0.2229055E-02	-0.59514
P18	0.75815	0.57479	0.06258	0.42817	0.2115183E-01	0.33051
P3	0.78891	0.62238	0.04759	-0.01447	19.18620	0.20892
P5	0.81178	0.65899	0.03662	0.11278	0.3548715	0.12948
R1	0.83324	0.69429	0.03530	-0.28668	-10.41081	-0.26197
P23	0.83969	0.70509	0.01080	0.20188	0.5645852E-02	0.92113
P8	0.84339	0.71131	0.00622	-0.54572	93.01204	0.34355
P4	0.84773	0.71864	0.00733	0.29659	-0.5531579E-03	-0.24063
P15	0.85179	0.72555	0.00691	0.12408	0.3133750E-01	0.14588
P2	0.85493	0.73091	0.00536	-0.32330	17.32961	0.37845
P1	0.86685	0.75144	0.02053	0.38171	0.2134732E-02	0.29787
P7	0.87173	0.75991	0.00848	0.33214	22.31747	0.12991
P17	0.87765	0.77027	0.01036	0.15593	0.4438380E-01	0.92021
P11	0.88553	0.78417	0.01390	0.07925	-0.2802055E-01	-0.29559
P16	0.89371	0.79873	0.01456	0.28918	-0.2755995E-01	-0.25199
R5	0.89704	0.80468	0.00595	0.04327	-6.709726	-0.13084
P14	0.90082	0.81147	0.00680	-0.23723	-0.5826042E-01	-0.16085
P22	0.90218	0.81393	0.00246	0.19518	-0.2378948E-02	-0.38703
R7	0.90344	0.81620	0.00227	0.10340	-17.50480	-0.17758
R4	0.90450	0.81812	0.00192	0.02850	-2.129755	-0.05055
P6	0.90541	0.81976	0.00164	-0.12505	-0.2327146	-0.07666
P12	0.90612	0.82105	0.00129	-0.10110	-0.3638173E-02	-0.04132
P19	0.90656	0.82185	0.00080	-0.44469	-0.8653263E-01	-0.66910
R6	0.90685	0.82237	0.00052	0.15333	-1.124414	-0.02829
P20	0.90705	0.82275	0.00038	0.32155	-0.9756354E-01	-1.04476
P9	0.91036	0.82876	0.00602	0.39344	171.4212	0.73478
P10	0.91153	0.83089	0.00213	0.14679	0.2079009E-01	0.43628
R2	0.91165	0.83111	0.00022	-0.09260	-0.9968838	-0.02314
P21	0.91172	0.83123	0.00011	0.18699	-0.1043362E-02	-0.30730
(CONSTANT)					-109.1636	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
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DEPENDENT VARIABLE.. C79
VARIABLE(S) ENTERED ON STEP NUMBER 10.. R1

VARIABLE LIST 1
REGRESSION LIST 5

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.74206	REGRESSION	10.	2337.31645	233.73165	10.04879	0.0000				
ADJUSTED R SQUARE	0.49586	RESIDUAL	82.	1907.29382	23.25968						
STANDARD ERROR	4.82283										

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-5.949702	-0.41632	1.50067	15.719	P4	-0.12374	-0.13127	0.50567	1.420
P13	-0.4249343E-03	-0.25709	0.00013	10.427	P6	0.05704	0.06861	0.65024	0.383
P5	0.1864634	0.15416	0.09304	4.016	P7	0.04086	0.05241	0.73938	0.223
P18	0.5566401E-02	0.19709	0.00269	4.293	P8	0.03620	0.04151	0.59084	0.140
P3	8.019030	0.19787	3.39430	5.581	P9	-0.13518	-0.14180	0.49449	1.662
P23	0.5795991E-02	2.14279	0.00306	3.587	P10	0.03695	0.04043	0.53800	0.133
P1	0.1261798E-02	0.39896	0.00044	8.307	P11	-0.06362	-0.08585	0.81827	0.601
P22	-0.5547114E-02	-2.04496	0.00306	3.292	P12	-0.00557	-0.00716	0.74189	0.004
P2	5.456435	0.27002	3.07139	3.156	P14	-0.01965	-0.02532	0.74629	0.052
R1	-1.950976	-0.11124	1.37888	2.002	P15	0.09924	0.11429	0.59602	1.072
(CONSTANT)	-9.072054				P16	-0.01779	-0.01467	0.30558	0.017

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P4	-0.12374	-0.13127	0.50567	1.420
P6	0.05704	0.06861	0.65024	0.383
P7	0.04086	0.05241	0.73938	0.223
P8	0.03620	0.04151	0.59084	0.140
P9	-0.13518	-0.14180	0.49449	1.662
P10	0.03695	0.04043	0.53800	0.133
P11	-0.06362	-0.08585	0.81827	0.601
P12	-0.00557	-0.00716	0.74189	0.004
P14	-0.01965	-0.02532	0.74629	0.052
P15	0.09924	0.11429	0.59602	1.072
P16	-0.01779	-0.01467	0.30558	0.017
P17	0.07505	0.08056	0.51780	0.529
P19	0.05652	0.06922	0.67402	0.390
P20	-0.10267	-0.10790	0.49634	0.954
P21	0.94408	0.05778	0.00168	0.271
P24	1.98683	0.05782	0.00038	0.272
R2	-0.07065	-0.09492	0.81122	0.736
R3	0.06410	0.08994	0.88477	0.661
R4	-0.03351	-0.04659	0.86865	0.176
R5	-0.06113	-0.08697	0.90940	0.617
R6	0.07380	0.10104	0.84229	0.835
R7	0.01132	0.00687	0.16567	0.004

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C79

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 5

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.58529	0.34256	0.34256	-0.58529	-4.343772	-0.30395
P13	0.62934	0.39607	0.05351	-0.33925	-0.5252225E-03	-0.31776
P5	0.65146	0.42440	0.02833	0.14877	0.1740341	0.14389
P18	0.66803	0.44626	0.02186	0.34022	0.3303875E-02	0.11698
P3	0.69164	0.47836	0.03210	-0.00722	9.394312	0.23180
P23	0.70161	0.49225	0.01389	0.20818	0.6277412E-02	2.32078
P1	0.70881	0.50241	0.01016	0.40795	0.1395258E-02	0.44116
P22	0.72333	0.52321	0.02080	0.20162	-0.5813565E-02	-2.14319
P2	0.73463	0.53968	0.01647	-0.32768	6.590063	0.32611
R1	0.74206	0.55066	0.01097	-0.20800	-4.231808	-0.24129
P9	0.74812	0.55969	0.00904	0.32266	18.02963	0.17512
P15	0.75484	0.56978	0.01009	0.19626	0.1117659E-01	0.11790
P7	0.76024	0.57796	0.00818	0.21497	11.85408	0.15636
P17	0.76627	0.58718	0.00922	0.17580	-0.1846966E-01	0.86772
P11	0.77085	0.59421	0.00703	0.06997	-0.9451638E-02	-0.22594
P4	0.77652	0.60298	0.00877	0.22800	-0.2346950E-03	-0.23134
P16	0.78051	0.60919	0.00621	0.26570	-0.1081600E-01	-0.22410
R5	0.78356	0.61396	0.00477	0.02527	-3.063208	-0.13535
P14	0.78643	0.61848	0.00452	-0.24162	-0.2187192E-01	-0.13684
P6	0.78951	0.62333	0.00485	-0.08150	-0.1534401	-0.11453
R2	0.79301	0.62887	0.00554	-0.11321	-2.534219	-0.13332
R4	0.79732	0.63572	0.00685	-0.01230	-1.874923	-0.10084
P19	0.79922	0.63876	0.00304	-0.28696	-0.1592506E-01	-0.27903
P20	0.79988	0.63980	0.00104	0.26577	-0.1585367E-01	-0.38470
R7	0.80051	0.64082	0.00102	0.11628	-3.630205	-0.08345
P8	0.80066	0.64106	0.00024	-0.39034	16.52999	0.13835
P10	0.80072	0.64115	0.00009	0.17000	0.1786302E-02	0.08494
(CONSTANT)					-33.63035	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C95
VARIABLE(S) ENTERED ON STEP NUMBER 6.. P18
MULTIPLE R SQUARE 0.65525
ADJUSTED R SQUARE 0.42935
STANDARD ERROR 14.80319
ANALYSIS OF VARIANCE
REGRESSION 6.
RESIDUAL 86.
SUM OF SQUARES 14179.10951
MEAN SQUARE 2363.18492
F 10.78418
P 0.0000
VARIABLE LIST 1
REGRESSION LIST 6

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P23	0.2518915E-02	0.33386	0.00064	15.390	P1	0.05282	0.05321	0.57898	0.241
JUR	-17.51301	-0.43933	4.16713	17.662	P2	0.04251	0.03382	0.36111	0.097
P16	-0.5565498E-01	-0.41340	0.01674	11.053	P3	0.04587	0.05504	0.82170	0.258
P8	-45.10427	-0.13534	31.41747	2.061	P4	0.10298	0.09191	0.45457	0.724
R6	5.514046	0.11272	4.09640	1.812	P5	0.09631	0.12281	0.92782	1.302
P18	0.1185451E-01	0.15048	0.00920	1.661	P6	0.02371	0.02793	0.79152	0.066
(CONSTANT)	17.99741				P7	0.01541	0.01632	0.64000	0.023

P9	0.06854	0.05961	0.43157	0.303
P10	0.08342	0.06412	0.33713	0.351
P11	-0.03677	-0.04548	0.87286	0.176
P12	0.01278	0.01585	0.87763	0.021
P13	-0.03270	-0.04082	0.88953	0.142
P14	-0.00984	-0.01096	0.70757	0.010
P15	0.06978	0.07246	0.61527	0.449
P17	0.03780	0.02916	0.33960	0.072
P19	0.19302	0.06809	0.07101	0.396
P20	0.06494	0.05364	0.38934	0.245
P21	-0.62327	-0.10193	0.01526	0.892
P22	-1.01322	-0.10048	0.00561	0.867
P24	-1.00633	-0.10300	0.00598	0.911
R1	0.01169	0.01395	0.81323	0.017
R2	-0.08677	-0.11174	0.94623	1.075
R3	0.10367	0.13122	0.91425	1.489
R4	-0.01246	-0.01585	0.92235	0.021
R5	-0.03122	-0.03904	0.89221	0.130
R7	-0.01173	-0.00645	0.17254	0.004

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C95
VARIABLE LIST 1
REGRESSION LIST 6

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P23	0.44991	0.20242	0.20242	0.44991	0.1279808E-01	1.69628
JUR	0.55961	0.31316	0.11074	-0.39699	-12.65207	-0.31739
P16	0.61304	0.37581	0.06265	-0.06150	-0.6076783E-01	-0.45138
P8	0.63521	0.40349	0.02768	-0.31642	-100.4931	-0.30154
R6	0.64678	0.41833	0.01484	0.15952	6.673676	0.13642
P18	0.65525	0.42935	0.01102	0.12296	0.3618924E-03	0.00459
R3	0.66270	0.43918	0.00983	0.08829	6.015473	0.12908
P5	0.66934	0.44801	0.00884	0.18803	0.3771764	0.11180
P24	0.67497	0.45559	0.00757	0.43904	-0.2680857E-02	-1.34911
P19	0.67893	0.46095	0.00536	-0.26786	0.2908744E-01	0.18272
P1	0.68294	0.46641	0.00546	0.11993	0.1864132E-02	0.21131
P4	0.68632	0.47103	0.00463	0.26180	0.6233627E-03	0.22029
P7	0.69066	0.47700	0.00597	0.13246	32.54844	0.15392
P3	0.69282	0.48000	0.00300	0.01423	11.19103	0.09900
P12	0.69549	0.48371	0.00371	-0.01618	0.1174910E-01	0.10839
P9	0.69853	0.48794	0.00423	0.34647	-10.96616	-0.03819
P15	0.70038	0.49053	0.00259	0.10700	0.3170170E-01	0.11989
P2	0.70182	0.49255	0.00202	-0.03049	6.517488	0.11563
R5	0.70307	0.49431	0.00177	-0.05541	-4.395352	-0.06963
P13	0.70442	0.49621	0.00190	-0.15582	-0.3194403E-03	-0.06929
P11	0.70536	0.49753	0.00132	0.05243	-0.6914027E-02	-0.05925
P10	0.70658	0.49926	0.00172	-0.01149	0.2793532E-01	0.47623
P17	0.70811	0.50141	0.00216	-0.02593	-0.1444548E-01	-0.24331
P14	0.70862	0.50214	0.00073	-0.29315	-0.2225707E-01	-0.04992
P6	0.70881	0.50242	0.00027	-0.11646	-0.1145902	-0.03066
R7	0.70903	0.50272	0.00030	0.33827	-5.884877	-0.04850
P20	0.70919	0.50294	0.00022	0.21386	-0.1946027E-01	-0.16929
(CONSTANT)					-50.65176	

SENIOR HIGH ONLY

FILE NONAME (CREATION DATE = 08/25/80)

VARIABLE LIST 1

REGRESSION LIST 7

DEPENDENT VARIABLE.. C111

VARIABLE(S) ENTERED ON STEP NUMBER 9.. P11

MULTIPLE R	0.65179	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.42483	REGRESSION	9.	5229.15059	581.01673	6.81172	0.0000
ADJUSTED R SQUARE	0.36246	RESIDUAL	83.	7079.61880	85.29661		
STANDARD ERROR	9.23562						

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P23	0.1321467E-01	2.86893	0.00556	5.647	P1	0.01134	0.00805	0.28980	0.005
JUR	-8.374295	-0.34410	2.79920	8.950	P4	-0.06210	-0.06456	0.62174	0.343
P7	32.67446	0.25310	11.75810	7.722	P6	-0.00559	-0.00593	0.64594	0.003
P2	2.171728	0.06311	4.27493	0.258	P8	-0.04821	-0.05153	0.65720	0.218
P5	0.2605489	0.12650	0.17446	2.231	P9	-0.03795	-0.03662	0.53552	0.110
R3	4.891019	0.17191	2.46656	3.932	P10	-0.02081	-0.01777	0.41909	0.026
P22	-0.1163730E-01	-2.51931	0.00555	4.397	P12	-0.06318	-0.06906	0.68726	0.393
P3	10.77525	0.15613	6.50805	2.741	P13	-0.05252	-0.06477	0.87500	0.345
P11	0.8570068E-02	0.12030	0.00686	1.559	P14	-0.08011	-0.09009	0.72739	0.671
(CONSTANT)	-31.99514				P15	0.00175	0.00161	0.49076	0.000

P1	0.01134	0.00805	0.28980	0.005
P4	-0.06210	-0.06456	0.62174	0.343
P6	-0.00559	-0.00593	0.64594	0.003
P8	-0.04821	-0.05153	0.65720	0.218
P9	-0.03795	-0.03662	0.53552	0.110
P10	-0.02081	-0.01777	0.41909	0.026
P12	-0.06318	-0.06906	0.68726	0.393
P13	-0.05252	-0.06477	0.87500	0.345
P14	-0.08011	-0.09009	0.72739	0.671
P15	0.00175	0.00161	0.49076	0.000
P16	-0.07899	-0.06493	0.38862	0.347
P17	0.01087	0.00900	0.39408	0.007
P18	-0.00032	-0.00030	0.50598	0.000
P19	-0.02653	-0.02819	0.64964	0.065
P20	-0.05234	-0.05114	0.54906	0.215
P21	0.38278	0.02236	0.00196	0.041
P24	0.80524	0.02237	0.00044	0.041
R1	-0.01639	-0.01979	0.83875	0.032
R2	-0.00389	-0.00473	0.84901	0.002
R4	0.08388	0.10311	0.86901	0.881
R5	-0.09063	-0.11421	0.91352	1.084
R6	0.02917	0.03521	0.83811	0.102
R7	-0.18729	-0.10044	0.16540	0.836

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
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DEPENDENT VARIABLE.. C111
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 7

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P23	0.42167	0.17781	0.17781	0.42167	0.1278321E-01	2.77526
JUR	0.51281	0.26298	0.08517	-0.35225	-3.061658	-0.12580
P7	0.56262	0.31654	0.05357	0.22946	21.86406	0.16936
P2	0.58740	0.34504	0.02850	-0.04490	2.261514	0.06572
P5	0.60301	0.36362	0.01858	0.17209	0.1543040	0.07492
R3	0.61805	0.38198	0.01836	0.15968	2.897367	0.10184
P22	0.63302	0.40072	0.01873	0.40833	-0.7484249E-02	-1.62023
P3	0.64345	0.41403	0.01331	0.04490	13.66349	0.19798
P11	0.65179	0.42483	0.01080	0.09240	-0.4493793E-02	-0.06308
R5	0.65752	0.43233	0.00750	-0.12360	-5.537820	-0.14370
R7	0.66221	0.43852	0.00619	0.30715	-22.11952	-0.29859
P14	0.66622	0.44385	0.00533	-0.30958	-0.5780642E-01	-0.21237
P17	0.67096	0.45019	0.00634	-0.00491	0.2856143E-01	0.78798
P13	0.67727	0.45870	0.00851	-0.19554	-0.4046333E-03	-0.14376
P16	0.68305	0.46655	0.00786	-0.01595	-0.1894297E-01	-0.23048
P6	0.68830	0.47375	0.00720	-0.09197	-0.2935740	-0.12868
P12	0.69150	0.47817	0.00442	-0.13204	-0.6427012E-02	-0.09712
R1	0.69306	0.48034	0.00216	-0.19726	-2.421927	-0.08109
P4	0.69464	0.48253	0.00219	0.18787	-0.3319548E-03	-0.19215
P8	0.69662	0.48528	0.00275	-0.29996	52.91185	0.26006
R2	0.69746	0.48644	0.00116	-0.06575	-2.386642	-0.07373
P18	0.69795	0.48713	0.00069	0.16427	0.6104092E-02	0.12692
P10	0.69839	0.48774	0.00061	-0.00923	0.6143034E-02	0.17154
P9	0.69914	0.48880	0.00106	0.30389	98.98559	0.56459
P20	0.70027	0.49038	0.00158	0.19314	-0.5019863E-01	-0.71531
P19	0.70160	0.49224	0.00186	-0.26733	-0.3902649E-01	-0.40155
R6	0.70201	0.49282	0.00057	0.04166	-1.019851	-0.03415
P1	0.70227	0.49318	0.00037	0.06704	-0.3289718E-03	-0.06108
P21	0.70259	0.49364	0.00046	0.39929	-0.1489494E-02	-0.58376
(CONSTANT)					-56.93586	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C120
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P14
VARIABLE LIST 1
REGRESSION LIST 8

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.77662	REGRESSION		11.	29215.30696	2655.93700	11.19100	0.0000
ADJUSTED R SQUARE	0.54924	RESIDUAL		81.	19223.56028	237.32790		
STANDARD ERROR	15.40545							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-19.98479	-0.41395	5.14640	15.080	P1	0.17708	0.14958	0.28316	1.831
P23	0.1774465E-01	1.94197	0.00928	3.653	P4	-0.04309	-0.04366	0.40736	0.153
P8	-359.0869	-0.88967	113.83882	9.950	P6	-0.00894	-0.00937	0.43572	0.007
P5	0.5939946	0.14538	0.30290	3.846	P9	0.02446	0.02312	0.35459	0.043
P13	-0.1067595E-02	-0.19120	0.00043	6.102	P10	0.00955	0.00716	0.22335	0.004
P3	18.48773	0.13504	10.63680	3.021	P11	-0.03857	-0.04898	0.64015	0.192
P22	-0.1589527E-01	-1.73463	0.00928	2.936	P12	-0.03758	-0.05050	0.71676	0.205
P7	57.18486	0.22329	23.51721	5.913	P15	0.06347	0.05711	0.32133	0.262
P19	0.1493916	0.77485	0.05596	7.128	P16	-0.03766	-0.03150	0.27762	0.079
P2	12.42212	0.18197	7.26831	2.921	P17	-0.00724	-0.00525	0.20913	0.002
P14	-0.7248686E-01	-0.13424	0.04645	2.435	P18	-0.01838	-0.01478	0.25644	0.017
(CONSTANT)	-17.32967				P20	-0.00959	-0.00893	0.34375	0.006

P21	-0.12470	-0.00862	0.00190	0.006
P24	-0.26148	-0.00859	0.00043	0.006
R1	-0.07625	-0.10541	0.75838	0.899
R2	0.01074	0.01556	0.83201	0.019
R3	0.05355	0.08170	0.92355	0.538
R4	0.03973	0.05997	0.90421	0.289
R5	-0.04330	-0.06554	0.90908	0.345
R6	-0.00303	-0.00449	0.86897	0.002
R7	-0.05703	-0.03676	0.16483	0.108

SENIOR HIGH ONLY

FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C120

VARIABLE LIST 1

REGRESSION LIST 8

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.54886	0.30124	0.30124	-0.54886	-12.02658	-0.24911
P23	0.61724	0.38099	0.07975	0.36215	0.2001128E-01	2.19003
P8	0.66695	0.44482	0.06383	-0.47816	-78.77808	-0.19518
P5	0.68881	0.47446	0.02964	0.21165	0.4169472	0.10204
P13	0.71058	0.50493	0.03047	-0.30829	-0.1511499E-02	-0.27070
P3	0.72355	0.52352	0.01859	0.01760	16.86903	0.12322
P22	0.73904	0.54617	0.02265	0.35124	-0.1755087E-01	-1.91531
P7	0.74778	0.55917	0.01300	0.23240	58.27690	0.22756
P19	0.76103	0.57917	0.02000	-0.39042	-0.4079066E-02	-0.02116
P2	0.76890	0.59121	0.01204	-0.17683	28.25714	0.41393
P14	0.77662	0.60314	0.01193	-0.35183	-0.8291703E-01	-0.15356
P1	0.78232	0.61202	0.00888	0.25207	0.2706422E-02	0.25331
R1	0.78701	0.61938	0.00737	-0.24823	-8.984026	-0.15164
P15	0.79137	0.62627	0.00688	0.17880	0.6261411E-01	0.19552
R5	0.79593	0.63350	0.00723	-0.00980	-8.277518	-0.10827
R6	0.79684	0.63496	0.00146	0.11353	-1.948315	-0.03289
R7	0.79748	0.63597	0.00101	0.25173	-16.00257	-0.10889
P4	0.79810	0.63697	0.00099	0.28891	-0.5804221E-03	-0.16936
P9	0.79957	0.63932	0.00235	0.43598	224.6308	0.64586
P11	0.80057	0.64091	0.00159	0.11295	-0.1736092E-01	-0.12285
P17	0.80188	0.64302	0.00211	0.07414	0.1253576E-01	0.17434
P20	0.80347	0.64556	0.00255	0.31541	-0.1045105	-0.75071
P10	0.80557	0.64894	0.00338	0.08462	0.3545554E-01	0.49908
P16	0.80580	0.64931	0.00036	0.13005	-0.1309990E-01	-0.08034
P6	0.80600	0.64963	0.00032	-0.10196	-0.1449441	-0.03203
P18	0.80618	0.64993	0.00030	0.26561	0.4193580E-02	0.04395
P12	0.80637	0.65023	0.00030	-0.11204	-0.3012359E-02	-0.02295
(CONSTANT)					-103.8009	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C129
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P2
MULTIPLE R 0.66912
R SQUARE 0.44772
ADJUSTED R SQUARE 0.38784
STANDARD ERROR 9.41373

ANALYSIS OF VARIANCE
REGRESSION 9.
RESIDUAL 83.
SUM OF SQUARES 5962.81178
7355.32472
MEAN SQUARE 662.53464
88.61837
F 7.47627
P 0.0000

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-10.53152	-0.41602	2.86536	13.509	P4	0.10308	0.10891	0.61647	0.984
P23	0.6980575E-02	1.45694	0.00331	4.460	P5	-0.02071	-0.02652	0.90575	0.058
P14	-0.3442197E-01	-0.12158	0.02500	1.895	P6	-0.00307	-0.00347	0.70582	0.001
R6	5.304493	0.17075	2.71797	3.809	P7	0.05391	0.06451	0.79085	0.343
P3	8.555345	0.11918	6.51847	1.723	P8	-0.04559	-0.05214	0.72221	0.223
P21	-0.3064508E-02	-1.15463	0.00182	2.836	P9	0.06236	0.06513	0.60236	0.349
R3	3.185485	0.10764	2.53415	1.580	P10	0.11764	0.11128	0.49417	1.028
P1	0.2061575E-02	0.36799	0.00082	6.315	P11	0.08032	0.09736	0.81135	0.785
P2	13.57772	0.37932	5.93991	5.225	P12	0.07985	0.09000	0.70162	0.670
(CONSTANT)	-1.967631				P13	-0.04775	-0.06155	0.91748	0.312

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P4	0.10308	0.10891	0.61647	0.984
P5	-0.02071	-0.02652	0.90575	0.058
P6	-0.00307	-0.00347	0.70582	0.001
P7	0.05391	0.06451	0.79085	0.343
P8	-0.04559	-0.05214	0.72221	0.223
P9	0.06236	0.06513	0.60236	0.349
P10	0.11764	0.11128	0.49417	1.028
P11	0.08032	0.09736	0.81135	0.785
P12	0.07985	0.09000	0.70162	0.670
P13	-0.04775	-0.06155	0.91748	0.312
P15	0.08305	0.08978	0.64539	0.666
P16	0.13667	0.10515	0.32693	0.917
P17	0.12490	0.11546	0.47196	1.108
P18	0.05260	0.05495	0.60266	0.248
P19	-0.01264	-0.01498	0.77542	0.018
P20	0.06307	0.06502	0.58697	0.348
P22	-2.76311	-0.08935	0.00058	0.660
P24	-10.51945	-0.08934	0.00004	0.660
R1	0.02086	0.02426	0.74725	0.048
R2	-0.02227	-0.02663	0.78946	0.058
R4	0.08713	0.10484	0.79969	0.911
R5	-0.09103	-0.11539	0.88733	1.107
R7	-0.04135	-0.02224	0.15981	0.041

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C129 REGRESSION LIST 9

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.43590	0.19001	0.19001	-0.43590	-3.721921	-0.14703
P23	0.55795	0.31131	0.12130	0.41020	0.7187918E-02	1.50021
P14	0.57900	0.33524	0.02393	-0.32286	-0.5413673E-01	-0.19121
R6	0.59975	0.35970	0.02446	0.15437	5.299676	0.17060
P3	0.61277	0.37549	0.01580	0.05349	19.57798	0.27272
P21	0.62479	0.39036	0.01487	0.39700	-0.2922268E-02	-1.10104
R3	0.63427	0.40230	0.01193	0.06052	3.841531	0.12981
P1	0.64261	0.41295	0.01065	0.22884	0.1808205E-02	0.32276
P2	0.66912	0.44772	0.03477	-0.09379	19.00173	0.53085
P17	0.67460	0.45508	0.00736	0.06069	-0.1847311E-01	-0.48996
R5	0.68200	0.46513	0.01005	-0.10737	-6.844962	-0.17075
P7	0.68826	0.47371	0.00857	0.13612	32.28405	0.24041
P13	0.69296	0.48019	0.00648	-0.17002	-0.1923911E-03	-0.06571
P15	0.69672	0.48541	0.00523	0.13908	0.2492450E-01	0.14843
P6	0.70169	0.49237	0.00696	-0.09219	-0.3371897	-0.14209
P12	0.70601	0.49844	0.00607	-0.03206	0.9107642E-02	0.13231
P18	0.70808	0.50137	0.00293	0.14701	-0.6667418E-02	-0.13327
P4	0.71062	0.50498	0.00361	0.27662	0.3366028E-03	0.18731
P20	0.71355	0.50916	0.00417	0.23831	-0.1487826	-2.03816
P10	0.71816	0.51575	0.00660	0.06873	0.5645961E-01	1.51566
P9	0.72737	0.52907	0.01332	0.34662	220.6848	1.21010
P19	0.73259	0.53668	0.00761	-0.24793	-0.3700650E-01	-0.36605
P16	0.73562	0.54113	0.00445	0.08290	0.2425101E-01	0.28366
P11	0.73807	0.54474	0.00361	0.14268	0.7730344E-02	0.10432
R7	0.73994	0.54752	0.00277	0.29865	-10.48683	-0.13609
P5	0.74105	0.54916	0.00164	0.08925	-0.1028304	-0.04800
R4	0.74151	0.54984	0.00068	-0.00447	1.207487	0.03666
P8	0.74171	0.55014	0.00030	-0.31376	28.99929	0.13702
(CONSTANT)					-110.3566	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE... C138
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P6
MULTIPLE R 0.60852
R SQUARE 0.37029
ADJUSTED R SQUARE 0.31843
STANDARD ERROR 7.30236

VARIABLE(S)		ENTERED	ON STEP	NUMBER	7..	P6						
							ANALYSIS OF VARIANCE					
MULTIPLE R		0.60852					DF					
R SQUARE		0.37029					7..	SUM OF SQUARES				
ADJUSTED R SQUARE		0.31843					85.	MEAN SQUARE				
STANDARD ERROR		7.30236						F				
							P					
							7.14041					
							0.0000					

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C138 REGRESSION LIST 10

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.49598	0.24600	0.24600	-0.49598	-5.392301	-0.28975
P8	0.51829	0.26862	0.02263	-0.34681	-24.94872	-0.16035
R5	0.54188	0.29363	0.02501	-0.07638	-6.014318	-0.20408
R4	0.56686	0.32133	0.02770	-0.08612	-3.260177	-0.13466
P1	0.57914	0.33540	0.01407	0.35951	0.1183829E-02	0.28744
P2	0.59938	0.35926	0.02385	-0.26680	4.9699995	0.18887
P6	0.60852	0.37029	0.01103	-0.01441	0.9859730E-02	0.00565
P9	0.61402	0.37702	0.00673	0.36437	88.92746	0.66329
P7	0.62004	0.38445	0.00743	0.13788	20.60669	0.20872
R6	0.62354	0.38881	0.00436	0.17540	1.893550	0.08291
P3	0.62639	0.39237	0.00356	0.04630	6.906413	0.13086
P11	0.63112	0.39831	0.00595	0.18801	0.6970733E-02	0.12796
P5	0.63332	0.40109	0.00278	0.03434	-0.2118305	-0.13449
P4	0.63653	0.40517	0.00408	0.22363	-0.1658770E-03	-0.12556
P19	0.63842	0.40758	0.00241	-0.24841	-0.9319997E-02	-0.12540
P16	0.64055	0.41031	0.00273	0.20392	-0.6759068E-02	-0.10754
P10	0.64681	0.41837	0.00806	0.16983	0.3722047E-01	1.35914
P17	0.65624	0.43065	0.01228	0.15359	-0.2143579E-01	-0.77335
P20	0.65956	0.43502	0.00438	0.29697	-0.4612728E-01	-0.85953
R2	0.66149	0.43757	0.00255	-0.02736	-1.646824	-0.06653
P12	0.66199	0.43824	0.00067	-0.08005	0.1988586E-02	0.03930
P14	0.66242	0.43880	0.00056	-0.16867	0.6843367E-02	0.03288
P23	0.66291	0.43945	0.00065	0.14963	0.2347295E-02	0.66640
R7	0.66747	0.44552	0.00606	0.02792	-13.17917	-0.23265
P21	0.66889	0.44741	0.00189	0.15498	-0.8372552E-03	-0.42910
R1	0.66908	0.44766	0.00025	-0.09881	-0.6857927	-0.03003
P15	0.66923	0.44787	0.00021	0.15798	0.3570719E-02	0.02892
P18	0.66933	0.44800	0.00013	0.27095	-0.9755473E-03	-0.02652
(CONSTANT)					-39.88024	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC--=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C143
VARIABLE(S) ENTERED ON STEP NUMBER 8.. P5
VARIABLE LIST 1
REGRESSION LIST 11

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE		REGRESSION	DF	190020.57698		23752.57212		9.18844		0.0000	
ADJUSTED R SQUARE	0.41590	RESIDUAL	84.	217144.17408		2585.04969					
STANDARD ERROR	50.84338										

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P23	0.1290144	4.86995	0.03731	11.955	P1	0.01347	0.01155	0.39257	0.011
P22	-0.2109112	-7.93873	0.07463	7.988	P2	0.03899	0.02861	0.28713	0.068
JUR	-46.04608	-0.32897	13.91243	10.954	P3	0.07356	0.08724	0.75023	0.637
P16	-0.1683942	-0.35623	0.05582	9.100	P6	0.03345	0.04130	0.81298	0.142
P21	0.4968345E-01	3.38557	0.02491	3.979	P7	-0.02772	-0.03658	0.92893	0.111
R4	28.87993	0.15860	14.73895	3.839	P8	0.06392	0.07025	0.64418	0.412
P4	0.1750004E-02	0.17613	0.00110	2.520	P9	-0.06820	-0.04367	0.21865	0.159
P5	1.368037	0.11548	0.97404	1.973	P10	0.08706	0.07009	0.34566	0.410
(CONSTANT)	10.96325				P11	-0.03681	-0.04618	0.83933	0.177

P12	-0.02730	-0.03397	0.82557	0.096
P13	0.03697	0.04779	0.89086	0.190
P14	-0.08480	-0.09691	0.59650	0.787
P15	0.07028	0.07259	0.56893	0.440
P17	0.02901	0.02340	0.34692	0.045
P18	-0.03774	-0.03535	0.46788	0.104
P19	0.05411	0.06503	0.77031	0.353
P20	0.00562	0.00322	0.17526	0.001
P24	999999.99999	99999.99999	-0.00000	99999.999
R1	0.05125	0.06321	0.81122	0.333
R2	-0.03662	-0.04745	0.89537	0.187
R3	0.06348	0.08187	0.88691	0.560
R5	0.02913	0.03645	0.83492	0.110
R6	-0.10361	-0.13320	0.88147	1.499
R7	0.03229	0.01754	0.15742	0.026

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C143 REGRESSION LIST 11

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P23	0.44129	0.19474	0.19474	0.44129	0.1251796	4.72520
P22	0.52854	0.27935	0.08461	0.41712	-0.1997934	-7.52025
JUR	0.56665	0.32110	0.04174	-0.23945	-43.29105	-0.30929
P16	0.62040	0.38489	0.06380	-0.18344	-0.1939770	-0.41035
P21	0.64536	0.41650	0.03160	0.41294	0.4495161E-01	3.06313
R4	0.66370	0.44049	0.02400	0.17201	22.98671	0.12623
P4	0.67392	0.45417	0.01368	0.20646	0.1789680E-02	0.18012
P5	0.68315	0.46669	0.01252	0.20104	1.148436	0.09695
R6	0.69004	0.47615	0.00946	-0.04468	-16.68837	-0.09716
P14	0.69342	0.48083	0.00468	-0.26147	-0.2733265	-0.17459
P10	0.69679	0.48552	0.00469	-0.01149	0.1137616	0.55233
P11	0.70219	0.49307	0.00755	0.04589	-0.2908530E-01	-0.07099
R2	0.70502	0.49705	0.00399	-0.16564	-19.66156	-0.10561
P2	0.70716	0.50008	0.00302	0.15079	16.68345	0.08429
P17	0.70867	0.50221	0.00214	-0.04800	-0.3397917E-01	-0.16299
P3	0.70947	0.50335	0.00114	0.00322	41.87618	0.10550
P6	0.71139	0.50608	0.00273	-0.07863	-1.260490	-0.09606
R5	0.71219	0.50722	0.00114	-0.01968	-10.46507	-0.04721
P9	0.71293	0.50826	0.00105	0.25459	-1.124326	-0.00112
P8	0.71307	0.50847	0.00021	-0.11796	322.9460	0.27598
P19	0.71368	0.50934	0.00087	-0.10581	-0.1603209	-0.028681
P1	0.71382	0.50954	0.00020	-0.14388	0.8021122E-03	0.02589
P15	0.71392	0.50969	0.00014	0.14755	0.2753639E-01	0.02966
P18	0.71398	0.50977	0.00008	-0.03626	0.4983799E-02	0.01802
P20	0.71404	0.50985	0.00008	0.15623	-0.4097532E-01	-0.10152
(CONSTANT)					-101.6723	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=O=PUBLIC-=1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C159
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P10

M U L T I P L E
R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 12

MULTIPLE R	0.61486	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.37805	REGRESSION	11.	4481.98401	407.45309	4.47595	0.0000
ADJUSTED R SQUARE	0.29359	RESIDUAL	81.	7373.56772	91.03170		
STANDARD ERROR	9.54105						

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P7	32.69092	0.25802	19.81479	2.722	P1	0.10227	0.09330	0.51770	0.703
JUR	-8.118562	-0.33991	2.76743	8.606	P2	-0.03956	-0.02786	0.30832	0.062
P13	-0.4993590E-03	-0.18077	0.00027	3.459	P4	-0.10320	-0.06428	0.24133	0.332
P3	12.14208	0.17927	6.60761	3.377	P5	0.07437	0.08799	0.87053	0.624
R7	13.33953	0.18348	6.94912	3.685	P6	-0.04013	-0.03569	0.49212	0.102
R6	3.142139	0.10720	2.68006	1.375	P11	-0.09717	-0.08828	0.51340	0.628
P9	-82.00446	-0.47659	27.53768	8.868	P12	-0.06042	-0.06418	0.70188	0.331
P18	0.1067987E-01	0.22626	0.00824	1.681	P14	0.05362	0.05132	0.56958	0.211
P16	-0.4184573E-01	-0.51877	0.01481	7.986	P15	-0.08272	-0.06068	0.33466	0.296
P8	-70.59603	-0.35355	29.35171	5.785	P17	0.07193	0.01750	0.03682	0.025
P10	0.1750279E-01	0.49800	0.00846	4.283	P19	-0.15780	-0.03327	0.02765	0.089
(CONSTANT)	-32.74825				P20	-0.44796	-0.07972	0.01970	0.512

P1	0.10227	0.09330	0.51770	0.703
P2	-0.03956	-0.02786	0.30832	0.062
P4	-0.10320	-0.06428	0.24133	0.332
P5	0.07437	0.08799	0.87053	0.624
P6	-0.04013	-0.03569	0.49212	0.102
P11	-0.09717	-0.08828	0.51340	0.628
P12	-0.06042	-0.06418	0.70188	0.331
P14	0.05362	0.05132	0.56958	0.211
P15	-0.08272	-0.06068	0.33466	0.296
P17	0.07193	0.01750	0.03682	0.025
P19	-0.15780	-0.03327	0.02765	0.089
P20	-0.44796	-0.07972	0.01970	0.512
P21	-0.03659	-0.02048	0.19483	0.034
P22	-0.01857	-0.00985	0.17512	0.008
P23	0.00924	0.00468	0.15947	0.002
P24	-0.02161	-0.01157	0.17843	0.011
R1	-0.07564	-0.08340	0.75614	0.560
R2	0.01372	0.01541	0.78386	0.019
R3	0.08073	0.09368	0.83763	0.708
R4	0.00432	0.00506	0.85353	0.002
R5	-0.04157	-0.04908	0.86689	0.193

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
SENIOR HIGH ONLY
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C159

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 12

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P7	0.30960	0.09585	0.09585	0.30960	24.14504	0.19057
JUR	0.40970	0.16786	0.07200	-0.28265	-5.788692	-0.24236
P13	0.44794	0.20065	0.03279	-0.28650	-0.5852977E-03	-0.21188
P3	0.47976	0.23017	0.02952	0.09670	12.14211	0.17927
R7	0.50093	0.25094	0.02076	0.13105	11.46681	0.15772
R6	0.51356	0.26374	0.01281	0.12579	4.525678	0.15441
P9	0.52621	0.27689	0.01315	0.06308	12.69094	0.07376
P18	0.54485	0.29686	0.01997	0.21230	0.1166579E-01	0.24715
P16	0.56878	0.32351	0.02665	-0.00211	-0.4865840E-01	-0.60323
P8	0.58750	0.34516	0.02165	-0.30139	54.15156	0.27119
P10	0.61486	0.37805	0.03289	-0.06062	0.2357225E-01	0.67070
R3	0.61928	0.38351	0.00546	0.04179	2.793170	0.10004
P1	0.62442	0.38990	0.00639	0.16705	0.1314766E-02	0.24874
P11	0.62849	0.39500	0.00510	-0.05657	-0.1254019E-01	-0.17937
R2	0.63221	0.39969	0.00469	-0.00104	1.699321	0.05349
P5	0.63579	0.40423	0.00454	0.04589	0.1037983	0.05135
P17	0.63931	0.40872	0.00449	-0.04687	0.2256214E-01	0.63425
P19	0.64345	0.41403	0.00531	-0.27841	-0.7143947E-01	-0.74897
R4	0.64651	0.41798	0.00395	-0.02169	1.494640	0.04810
P20	0.64903	0.42124	0.00327	0.00830	-0.4736786E-01	-0.68775
P2	0.65137	0.42428	0.00304	-0.10313	4.516649	0.13374
P4	0.65356	0.42714	0.00285	0.01904	-0.2788045E-03	-0.16444
P12	0.65503	0.42907	0.00193	-0.13501	-0.5071118E-02	-0.07808
R1	0.65534	0.42947	0.00040	-0.16386	-1.283534	-0.04379
P23	0.65556	0.42976	0.00029	0.16231	0.9884861E-02	2.18666
P22	0.66240	0.43877	0.00900	0.15204	-0.1272874E-01	-2.80777
P15	0.66274	0.43922	0.00045	-0.04749	-0.9467594E-02	-0.05976
P21	0.66316	0.43978	0.00056	0.14304	0.1752757E-02	0.69995
P14	0.66331	0.43998	0.00019	-0.17129	0.5714390E-02	0.02139
(CONSTANT)					-64.09579	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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DEPENDENT VARIABLE.. C16
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P12

M U L T I P L E
R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 1

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	ADJUSTED R SQUARE	REGRESSION	RESIDUAL	DF	DF	30258.70890	2750.79172	9.96976	0.0000		
0.75840	0.57518	11.	81.	11.	81.	22348.98751	275.91343				
STANDARD ERROR	16.61064										

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
JUR	-22.32402	-0.44371	5.02072	19.770	P1	P1	0.06784	0.07439	0.51083	0.445	
P13	-0.1406109E-02	-0.24164	0.00046	9.149	P2	P2	0.01679	0.01409	0.29895	0.016	
P3	35.80960	0.25099	14.29593	6.274	P4	P4	-0.11612	-0.08506	0.22797	0.583	
P8	-127.4289	-0.30295	54.10577	5.547	P5	P5	0.07382	0.10631	0.88115	0.915	
P7	83.16808	0.31162	27.10583	9.414	P9	P9	0.41979	0.11685	0.03292	1.108	
P15	0.6825891E-01	0.20453	0.04363	2.448	P11	P11	0.05247	0.05680	0.49782	0.259	
P16	-0.7043596E-01	-0.41453	0.02530	7.751	P14	P14	-0.03254	-0.03752	0.56504	0.113	
P10	0.4744073E-01	0.64079	0.01859	6.514	P17	P17	0.17543	0.04968	0.03407	0.198	
P20	-0.4394168E-01	-0.30287	0.02563	2.940	P18	P18	0.07414	0.05735	0.25418	0.264	
P6	-0.8126920	-0.17231	0.51963	2.446	P19	P19	0.00139	0.00034	0.02576	0.000	
P12	-0.1686303E-01	-0.12326	0.01186	2.023	P21	P21	0.05144	0.07015	0.79017	0.396	
(CONSTANT)	34.26857				P22	P22	0.05087	0.06945	0.79187	0.388	
					P23	P23	0.05027	0.06799	0.77712	0.371	
					P24	P24	0.05107	0.06951	0.78706	0.388	
					R1	R1	-0.10078	-0.13277	0.73738	1.436	
					R2	R2	-0.03374	-0.04366	0.71127	0.153	
					R3	R3	0.05370	0.07516	0.83205	0.454	
					R4	R4	-0.03534	-0.05184	0.91393	0.216	
					R5	R5	0.01029	0.01462	0.85760	0.017	
					R6	R6	0.06042	0.08966	0.93539	0.648	
					R7	R7	0.04650	0.06520	0.83525	0.342	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C16
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.58382	0.34085	0.34085	-0.58382	-17.23575	-0.34257
P13	0.63165	0.39899	0.05813	-0.34857	-0.1617117E-02	-0.27790
P3	0.66746	0.44551	0.04652	0.08641	44.64090	0.31288
P8	0.69538	0.48355	0.03804	-0.45752	205.0129	0.48740
P7	0.70226	0.49317	0.00962	0.23218	55.21121	0.20687
P15	0.71846	0.51619	0.02302	0.20605	0.9452491E-01	0.28323
P16	0.72900	0.53144	0.01525	0.20154	-0.5201531E-01	-0.30612
P10	0.73528	0.54063	0.00919	0.11899	0.6404423E-01	0.86505
P20	0.74363	0.55298	0.01235	0.24531	-0.1840792	-1.26878
P6	0.75138	0.56457	0.01158	-0.07630	-0.8940559	-0.18956
P12	0.75840	0.57518	0.01061	-0.20734	-0.1583482E-01	-0.11574
R1	0.76333	0.58267	0.00749	-0.21865	-10.67148	-0.17284
P5	0.76778	0.58949	0.00683	0.09282	0.2538831	0.05962
P1	0.77081	0.59415	0.00466	0.33138	0.1109115E-02	0.09961
P2	0.77340	0.59814	0.00399	-0.29802	12.36214	0.17377
P4	0.77518	0.60090	0.00276	0.21700	-0.7170650E-03	-0.20077
P17	0.77717	0.60399	0.00308	0.12124	0.2723509E-01	0.36345
R2	0.77861	0.60624	0.00226	-0.05835	-6.705852	-0.10021
R4	0.78015	0.60863	0.00239	-0.02346	-2.948859	-0.04505
P23	0.78128	0.61040	0.00177	0.15813	-0.3650089E-02	-0.38331
P9	0.78243	0.61220	0.00180	0.32169	251.0290	0.69258
P19	0.78566	0.61726	0.00506	-0.36743	-0.1809286	-0.90047
P18	0.78860	0.62189	0.00463	0.27281	0.1747530E-01	0.17576
P22	0.78883	0.62225	0.00036	0.15988	0.7002805E-02	0.73330
R5	0.78895	0.62244	0.00019	0.09170	-1.584015	-0.01988
P14	0.78900	0.62253	0.00009	-0.24771	-0.8902569E-02	-0.01582
R7	0.78907	0.62263	0.00011	0.06736	-5.239367	-0.03421
P21	0.78913	0.62272	0.00009	0.15822	-0.1434365E-02	-0.27192
(CONSTANT)					-65.74914	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C32
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P23
REGRESSION LIST 1
REGRESSION LIST 2

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.75290	REGRESSION	9.	19183.85813	2131.53979	12.06897	0.0000				
ADJUSTED R SQUARE	0.51989	RESIDUAL	83.	14658.89409	176.61318						
STANDARD ERROR	13.28959										

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-13.84828	-0.34317	4.25675	10.584	P1	0.03559	0.03947	0.53262	0.12
P13	-0.1320443E-02	-0.28292	0.00037	12.883	P2	0.05052	0.04387	0.32655	0.15
P14	-0.7494959E-01	-0.16606	0.04077	3.380	P4	-0.02464	-0.02354	0.39541	0.04
P8	-379.6904	-1.12544	104.01866	13.324	P5	0.06973	0.10059	0.90137	0.83
P19	0.1621718	1.00631	0.05026	10.409	P6	-0.01914	-0.01928	0.43955	0.03
P16	-0.2365974E-01	-0.17360	0.01506	2.468	P9	0.04069	0.03739	0.36561	0.11
P7	43.51365	0.20327	20.03933	4.715	P10	0.08494	0.04630	0.12868	0.17
P3	13.77523	0.12038	8.99143	2.347	P11	-0.07488	-0.09224	0.65730	0.70
P23	0.8074466E-03	0.10572	0.00058	1.909	P12	-0.00505	-0.00669	0.75882	0.00
(CONSTANT)	68.42773				P15	0.11229	0.09805	0.33028	0.79

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	0.03559	0.03947	0.53262	0.128
P2	0.05052	0.04387	0.32655	0.158
P4	-0.02464	-0.02354	0.39541	0.045
P5	0.06973	0.10059	0.90137	0.838
P6	-0.01914	-0.01928	0.43955	0.030
P9	0.04069	0.03739	0.36561	0.115
P10	0.08494	0.04630	0.12868	0.176
P11	-0.07488	-0.09224	0.65730	0.704
P12	-0.00505	-0.00669	0.75882	0.004
P15	0.11229	0.09805	0.33028	0.796
P17	0.12568	0.06860	0.12907	0.388
P18	0.09717	0.07105	0.23160	0.416
P20	0.02026	0.01654	0.28840	0.022
P21	-0.98638	-0.17688	0.01393	2.648
P22	-1.92306	-0.21180	0.00525	3.851
P24	-1.67477	-0.18845	0.00548	3.019
R1	-0.07408	-0.09915	0.77598	0.814
R2	-0.03345	-0.04632	0.83048	0.176
R3	0.00523	0.00775	0.94993	0.005
R4	0.04708	0.06875	0.92356	0.389
R5	-0.01157	-0.01686	0.91981	0.023
R6	0.05227	0.07661	0.93057	0.484
R7	-0.06415	-0.04038	0.17163	0.134

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C32 REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.56126	0.31501	0.31501	-0.56126	-6.002708	-0.14875
P13	0.62608	0.39197	0.07696	-0.37988	-0.1713489E-02	-0.36713
P14	0.66957	0.44832	0.05634	-0.36861	-0.1152393	-0.25533
P8	0.68818	0.47359	0.02527	-0.47318	-40.09916	-0.11886
P19	0.70947	0.50335	0.02976	-0.37585	-0.1459166E-01	-0.09054
P16	0.72375	0.52381	0.02046	0.16503	-0.2632555E-01	-0.19317
P7	0.73889	0.54596	0.02216	0.23820	20.78320	0.09709
P3	0.74625	0.55689	0.01093	0.03901	21.87670	0.19117
P23	0.75290	0.56685	0.00996	0.25330	0.2242607E-01	2.93624
P22	0.76569	0.58628	0.01943	0.24581	-0.2721918E-01	-3.55368
P1	0.77038	0.59348	0.00720	0.34347	0.2283701E-02	0.25572
P21	0.77434	0.59960	0.00612	0.23991	0.3695451E-02	0.87345
R1	0.77873	0.60642	0.00682	-0.22139	-7.735776	-0.15621
P2	0.78105	0.61004	0.00362	-0.28763	13.78042	0.24151
P15	0.78293	0.61298	0.00293	0.17971	0.3314500E-01	0.12382
R5	0.78524	0.61660	0.00362	0.04233	-5.062943	-0.07923
P17	0.78671	0.61891	0.00231	0.08550	0.5509245E-01	0.91664
P11	0.79292	0.62873	0.00982	0.07443	-0.2679888E-01	-0.22687
P4	0.79570	0.63314	0.00441	0.23866	-0.6688496E-03	-0.23349
P9	0.79829	0.63727	0.00412	0.36504	233.4717	0.80310
P20	0.80360	0.64577	0.00850	0.25007	-0.1059229	-0.91026
R7	0.80608	0.64977	0.00400	0.14048	-22.96426	-0.18695
P12	0.80742	0.65192	0.00215	-0.12420	-0.7669050E-02	-0.06989
P18	0.80886	0.65426	0.00233	0.27976	0.1092878E-01	0.13704
P6	0.80929	0.65495	0.00069	-0.04898	-0.1717425	-0.04540
R2	0.80966	0.65555	0.00060	-0.10593	-2.802872	-0.05222
R3	0.80994	0.65600	0.00044	0.03869	-1.780271	-0.03774
P5	0.81017	0.65638	0.00038	0.11243	0.9025014E-01	0.02643
R6	0.81031	0.65661	0.00023	0.11123	-1.070931	-0.02163
(CONSTANT)					-9.904141	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C48 REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P13	0.48360	0.23387	0.23387	-0.48360	-0.2155648E-02	-0.62300
P9	0.61242	0.37506	0.14119	0.37507	231.7059	1.07508
P14	0.66427	0.44126	0.06620	-0.28146	-0.6654503E-01	-0.19888
P3	0.69840	0.48776	0.04650	0.11548	22.00330	0.25935
P18	0.73409	0.53889	0.05113	0.27757	0.1450749E-01	0.24538
P5	0.76423	0.58405	0.04516	0.22530	0.4593457	0.18142
R2	0.77451	0.59986	0.01581	0.00167	6.971234	0.17519
P2	0.78589	0.61762	0.01777	-0.11696	17.96024	0.42456
P15	0.80272	0.64436	0.02674	-0.43913	1.527624	0.05106
P20	0.80894	0.65438	0.01002	0.08986	0.3217195E-01	0.16212
P17	0.81765	0.66856	0.01417	0.26618	-0.1182812	-1.37106
P19	0.82707	0.68405	0.01549	0.06371	0.3255678E-01	0.73066
P12	0.83731	0.70108	0.01704	-0.38983	-0.2381484E-01	-0.19933
P11	0.84354	0.71157	0.01048	-0.18754	-0.1226538E-01	-0.15077
R4	0.84911	0.72099	0.00943	0.15719	-0.1416380E-01	-0.16174
P23	0.85375	0.72889	0.00790	0.01771	3.103686	0.07974
R7	0.85868	0.73733	0.00844	0.27209	0.6075772E-02	1.07302
P21	0.86444	0.74726	0.00993	0.15963	-27.47241	-0.30168
P7	0.86829	0.75393	0.00667	0.25529	-0.2187027E-02	-0.69726
P10	0.87119	0.75898	0.00505	0.27748	34.58281	0.21791
P6	0.87493	0.76551	0.00653	0.06310	0.2387803E-01	0.54240
R1	0.87775	0.77045	0.00494	-0.06993	-0.3232043	-0.11524
P1	0.88010	0.77458	0.00413	-0.21593	-3.632342	-0.09894
P16	0.88259	0.77897	0.00439	0.20381	0.1055527E-02	0.15943
P4	0.88494	0.78313	0.00416	0.09617	-0.2192440E-01	-0.21699
R6	0.88623	0.78541	0.00228	0.24065	-0.2169525E-03	-0.10216
R5	0.88698	0.78674	0.00133	0.11290	1.414596	0.03853
(CONSTANT)	0.88708	0.78690	0.00016	0.00952	-0.8228433	-0.01737
					-76.92824	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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VARIABLE LIST 1
REGRESSION LIST 4
DEPENDENT VARIABLE.. C64

VARIABLE(S) ENTERED ON STEP NUMBER 12.. R1

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.80162	REGRESSION	DF	21549.65804	1795.80484	11.98665	0.0000				
ADJUSTED R SQUARE	0.58899	RESIDUAL	12.	11985.36701	149.81709						
STANDARD ERROR	12.23998		80.								

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
P8	-126.8981	-0.37786	36.56220	12.046	P1	0.11679	0.13502	0.47769	1.467		
JUR	-10.87820	-0.27080	3.52240	9.538	P2	-0.02596	-0.02392	0.30348	0.045		
P13	-0.1808771E-02	-0.38932	0.00036	24.692	P4	-0.16473	-0.11938	0.18769	1.142		
P18	0.2084662E-01	0.26260	0.01021	4.172	P6	-0.00500	-0.00571	0.46687	0.003		
P3	24.10948	0.21165	8.54652	7.958	P9	0.30917	0.10393	0.04039	0.863		
P16	-0.6251878E-01	-0.46084	0.01940	10.389	P10	0.16878	0.04267	0.02284	0.144		
P17	0.4671206E-01	0.78077	0.01218	14.712	P12	-0.02923	-0.03987	0.66497	0.126		
P7	49.19744	0.23088	23.65719	4.325	P14	-0.08410	-0.10208	0.52658	0.832		
P20	-0.3568737E-01	-0.30809	0.01639	4.744	P15	0.02369	0.02249	0.32210	0.040		
P11	-0.1878136E-01	-0.15973	0.01169	2.582	P19	0.09959	0.02483	0.02221	0.049		
P5	0.4729685	0.13912	0.24558	3.709	P21	0.04980	0.07474	0.80499	0.444		
R1	-6.215292	-0.12608	3.79026	2.689	P22	0.05417	0.08130	0.80521	0.526		
(CONSTANT)	-49.42126				P23	0.05963	0.08888	0.79394	0.629		
					P24	0.05360	0.08029	0.80204	0.513		
					R2	0.04116	0.05737	0.69434	0.261		
					R3	-0.01293	-0.02012	0.86534	0.032		
					R4	0.05420	0.08526	0.88441	0.578		
					R5	-0.07234	-0.11362	0.88171	1.033		
					R6	-0.02230	-0.03510	0.88545	0.097		
					R7	0.02315	0.03585	0.85712	0.102		

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C64

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.54396	0.29589	0.29589	-0.54396	26.73291	0.07960
JUR	0.62275	0.38782	0.09193	-0.50550	-2.209210	-0.05500
P13	0.67447	0.45492	0.06710	-0.42098	-0.2009197E-02	-0.43246
P18	0.70129	0.49181	0.03689	0.42257	0.2121426E-01	0.26723
P3	0.73460	0.53964	0.04783	0.00904	24.19699	0.21242
P16	0.74929	0.56143	0.02179	0.24917	-0.4979190E-01	-0.36702
P17	0.75444	0.56917	0.00774	0.13707	0.5721468E-01	0.95631
P7	0.76869	0.59088	0.02171	0.37148	45.53052	0.21367
P20	0.77934	0.60736	0.01648	0.27655	-0.1383834	-1.19465
P11	0.78592	0.61767	0.01031	0.05546	-0.3160735E-01	-0.26880
P5	0.79410	0.63059	0.01292	0.04831	0.1413094	0.04157
R1	0.80162	0.64260	0.01201	-0.25989	-7.415717	-0.15043
P1	0.80568	0.64912	0.00652	0.34460	0.1724402E-02	0.19398
R5	0.80980	0.65578	0.00666	0.03965	-5.509715	-0.08662
P14	0.81205	0.65943	0.00365	-0.21457	-0.4995669E-01	-0.11119
P4	0.81453	0.66346	0.00403	0.25889	-0.7048264E-03	-0.24718
P2	0.81684	0.66723	0.00378	-0.31540	11.59565	0.20415
P9	0.81862	0.67014	0.00290	0.34413	238.9123	0.82558
P10	0.81998	0.67236	0.00223	0.11678	0.3123179E-01	0.52836
P19	0.82318	0.67762	0.00526	-0.44976	-0.8776105E-01	-0.54707
R4	0.82398	0.67895	0.00133	0.09310	1.900172	0.03636
P23	0.82478	0.68027	0.00132	0.12808	0.1412293E-01	1.85758
P22	0.82917	0.68752	0.00725	0.12032	-0.1223039E-01	-1.60409
R7	0.83398	0.69552	0.00801	0.03343	-28.45221	-0.23269
P12	0.83468	0.69669	0.00117	-0.08045	-0.4806380E-02	-0.04400
R2	0.83525	0.69764	0.00095	-0.03033	2.260959	0.04232
P6	0.83552	0.69810	0.00046	-0.09824	-0.1602374	-0.04255
P15	0.83591	0.69874	0.00064	0.08636	0.1485365E-01	0.05574
(CONSTANT)					-104.9067	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE... C80
VARIABLE(S) ENTERED ON STEP NUMBER 8.. P8

MULTIPLE REGRESSION

VARIABLE LIST 1
REGRESSION LIST 5

MULTIPLE R	0.62516	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.39083	REGRESSION	8.	4459.72949	557.46619	6.73643	0.0000
ADJUSTED R SQUARE	0.33281	RESIDUAL	84.	6951.32688	82.75389		
STANDARD ERROR	9.09692						

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-6.149956	-0.26246	2.89604	4.510	P1	0.00822	0.00852	0.65427	0.006
P13	-0.7611664E-03	-0.28086	0.00026	8.368	P2	0.00801	0.00723	0.49579	0.004
P11	-0.2311893E-01	-0.33705	0.00793	8.491	P3	-0.00363	-0.00430	0.85370	0.002
P14	-0.6445589E-01	-0.24594	0.03011	4.583	P4	-0.05478	-0.04347	0.38348	0.157
P17	0.3212426E-01	0.92047	0.01559	4.244	P5	0.06921	0.08061	0.82640	0.543
P10	-0.2183391E-01	-0.63322	0.01484	2.164	P6	-0.01664	-0.01788	0.70379	0.027
R5	-5.5922275	-0.15071	3.35336	2.781	P7	-0.04105	-0.04137	0.61876	0.142
P8	-25.39762	-0.12964	19.66816	1.667	P9	-0.04731	-0.03418	0.31789	0.097
(CONSTANT)	77.19738				P12	-0.05092	-0.05811	0.79348	0.281

P15	0.09994	0.07932	0.38367	0.525
P16	-0.14200	-0.09052	0.24753	0.686
P18	-0.02509	-0.02327	0.52408	0.045
P19	0.38822	0.09475	0.03629	0.752
P20	-0.11681	-0.06210	0.17219	0.321
P21	-0.01799	-0.02191	0.90316	0.040
P22	-0.01482	-0.01805	0.90273	0.027
P23	-0.01012	-0.01234	0.90679	0.013
P24	-0.01511	-0.01841	0.90386	0.028
R1	-0.05684	-0.06447	0.78375	0.346
R2	0.07826	0.09421	0.88273	0.743
R3	-0.03084	-0.03801	0.92503	0.120
R4	-0.03813	-0.04741	0.94145	0.187
R6	0.06459	0.07919	0.91569	0.524
R7	-0.04068	-0.05028	0.93059	0.210

(PAIRWISE DELETION) R1 TO R7=7, REGIONS, JUR=0=PUBLIC=-1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C80
VARIABLE LIST 1
REGRESSION LIST 5

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.45533	0.20732	0.20732	-0.45533	-2.338117	-0.09978
P13	0.51417	0.26437	0.05704	-0.32171	-0.9898438E-03	-0.36524
P11	0.55362	0.30649	0.04213	-0.10040	-0.2802724E-01	-0.40861
P14	0.57007	0.32498	0.01848	-0.27246	-0.6330636E-01	-0.24156
P17	0.58406	0.34113	0.01615	0.03329	0.3725248E-01	1.06742
P10	0.60227	0.36273	0.02161	0.00801	-0.2206980E-01	-0.64006
R5	0.61541	0.37873	0.01600	-0.04899	-5.478075	-0.14763
P8	0.62516	0.39083	0.01209	-0.36374	-74.40497	-0.37981
P19	0.62952	0.39629	0.00547	-0.30991	0.2640383E-01	0.28216
R2	0.63498	0.40320	0.00690	0.00584	3.983296	0.12780
P6	0.63971	0.40923	0.00603	0.12700	1.847317	0.06424
P15	0.64239	0.41267	0.00344	0.09617	0.2424146E-01	0.15596
P6	0.64494	0.41594	0.00327	-0.12344	-0.1386683	-0.06313
P16	0.64701	0.41862	0.00267	0.19806	-0.1748348E-01	-0.22093
P1	0.64989	0.42236	0.00374	0.30040	0.4329960E-03	0.08350
P12	0.65196	0.42505	0.00269	-0.12244	-0.3935515E-02	-0.06177
R7	0.65355	0.42712	0.00207	-0.01977	-18.17125	-0.25476
P23	0.65622	0.43062	0.00350	0.07161	0.4342704E-02	0.97919
P21	0.66172	0.43787	0.00725	0.06185	-0.1884009E-02	-0.76688
R1	0.66335	0.44004	0.00217	-0.18920	-2.188689	-0.07611
P5	0.66445	0.44149	0.00145	0.02549	0.7850705E-01	0.03959
P2	0.66497	0.44219	0.00070	-0.33630	-1.845532	-0.05570
R4	0.66531	0.44264	0.00045	0.07233	-0.9673108	-0.03173
P3	0.66566	0.44311	0.00047	-0.08129	-2.571218	-0.03869
P7	0.66591	0.44343	0.00032	0.19867	7.032396	0.05658
P18	0.66625	0.44389	0.00046	0.17811	-0.2283692E-02	-0.04932
(CONSTANT)					72.79844	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=O=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE... C96
VARIABLE(S) ENTERED ON STEP NUMBER 8.. P5
VARIABLE LIST 1
REGRESSION LIST 6

MULTIPLE R 0.67998 ANALYSIS OF VARIANCE DF SUM OF SQUARES MEAN SQUARE F P
R SQUARE 0.46237 REGRESSION 8. 31907.91911 3988.48989 9.03006 0.0000
ADJUSTED R SQUARE 0.41116 RESIDUAL 84. 37101.97535 441.69018
STANDARD ERROR 21.01643

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-24.82598	-0.43082	5.95036	17.407	P1	0.10313	0.10088	0.51447	0.853
P23	0.2659370E-02	0.24383	0.00099	7.249	P2	-0.07302	-0.05570	0.31285	0.258
P16	-0.7222082E-01	-0.37110	0.02274	10.084	P3	0.03157	0.03907	0.82329	0.127
P8	-84.41068	-0.17521	47.21440	3.196	P6	0.06770	0.08166	0.78214	0.557
R6	8.922033	0.12617	6.07789	2.155	P7	0.09018	0.10727	0.76068	0.966
R3	7.715945	0.11454	5.68964	1.839	P9	-0.15820	-0.09680	0.20129	0.785
P4	0.6171475E-03	0.15087	0.00049	1.618	P10	0.03719	0.02520	0.24673	0.053
P5	0.5087110	0.10431	0.40757	1.558	P11	-0.06979	-0.08489	0.79546	0.602
(CONSTANT)	54.20212				P12	0.04995	0.05930	0.75770	0.293

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P13	0.03368	0.04211	0.84054	0.147
P14	-0.03153	-0.03465	0.64935	0.100
P15	0.05091	0.05144	0.54892	0.220
P17	0.00890	0.00620	0.26060	0.003
P18	0.08468	0.07912	0.46938	0.523
P19	0.20781	0.07465	0.06938	0.465
P20	-0.16877	-0.09752	0.17949	0.797
P21	-0.59676	-0.10033	0.01520	0.844
P22	-0.77400	-0.07806	0.00547	0.509
P24	-0.91505	-0.09608	0.00593	0.773
R1	0.02986	0.03423	0.70662	0.097
R2	0.00092	0.00115	0.84530	0.000
R4	0.02813	0.03482	0.82379	0.101
R5	-0.06040	-0.07239	0.77229	0.437
R7	-0.10879	-0.06146	0.17161	0.315

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C96
VARIABLE LIST 1
REGRESSION LIST 6

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.42316	0.17906	0.17906	-0.42316	-17.55361	-0.30462
P23	0.54200	0.29376	0.11469	0.39876	0.1524835E-01	1.39810
P16	0.60039	0.36047	0.06671	-0.04413	-0.7939301E-01	-0.40795
P8	0.64535	0.41648	0.05601	-0.38652	-245.8644	-0.51035
R6	0.65515	0.42923	0.01275	0.16907	10.60229	0.14993
R3	0.66651	0.44424	0.01501	0.11672	10.76714	0.15983
P4	0.67260	0.45240	0.00816	0.29113	0.1318748E-02	0.32239
P5	0.67998	0.46237	0.00997	0.19277	0.5215469	0.10694
P7	0.68451	0.46855	0.00619	0.16817	71.54380	0.23405
P19	0.69198	0.47884	0.01029	-0.33667	0.4709678E-01	0.20466
P21	0.69647	0.48507	0.00622	0.38279	-0.5911840E-02	-0.97853
P9	0.70032	0.49045	0.00538	0.36687	63.92013	0.15398
P1	0.70383	0.49538	0.00493	0.13761	0.2002066E-02	0.15699
R7	0.70674	0.49948	0.00410	0.26472	-31.00098	-0.17674
P6	0.70906	0.50277	0.00329	-0.12289	0.2396983	0.04437
P12	0.71166	0.50647	0.00370	-0.03434	0.2175763E-01	0.13886
R5	0.71449	0.51050	0.00404	-0.07170	-8.625507	-0.09452
P11	0.71705	0.51416	0.00366	0.02641	-0.6482219E-02	-0.03843
P10	0.71932	0.51742	0.00326	-0.02278	0.7315742E-01	0.86276
P18	0.72194	0.52119	0.00377	0.12256	-0.1517409E-01	-0.13325
P17	0.72478	0.52530	0.00411	-0.03547	-0.4271840E-01	-0.49774
P20	0.72633	0.52755	0.00225	0.22362	-0.9583433E-01	-0.57673
P13	0.72785	0.52976	0.00222	-0.10502	0.2306723E-03	0.03461
P3	0.72861	0.53087	0.00111	0.00402	6.874320	0.04207
P15	0.72972	0.53249	0.00162	0.09501	0.3966702E-01	0.10377
R2	0.73020	0.53319	0.00070	-0.11016	3.020021	0.03940
P2	0.73056	0.53372	0.00053	-0.06679	4.773281	0.05858
(CONSTANT)					-56.86630	

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DEPENDENT VARIABLE.. C112

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VARIABLE LIST 1

REGRESSION LIST 7

VARIABLE(S) ENTERED ON STEP NUMBER 13.. P7

MULTIPLE R	0.68177	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.46481	REGRESSION		13.	10897.81030	838.29310	5.27772	0.0000
ADJUSTED R SQUARE	0.37674	RESIDUAL		79.	12548.06131	158.83622		
STANDARD ERROR	12.60302							

----- VARIABLES IN THE EQUATION -----

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P23	0.1715918E-01	2.69920	0.00744	5.325	P1	-0.05453	-0.04954	0.44175	0.192
R2	6.508354	0.14568	4.29433	2.297	P2	0.07484	0.05404	0.27903	0.228
R3	7.311617	0.18621	3.58837	4.152	P4	0.11010	0.06888	0.20946	0.372
P22	-0.1517433E-01	-2.38020	0.00739	4.219	P5	0.02708	0.03433	0.85993	0.092
JUR	-13.52820	-0.40277	3.74631	13.040	P8	0.04582	0.03824	0.37279	0.114
P16	-0.5944304E-01	-0.52403	0.01892	9.875	P9	0.14026	0.03789	0.03905	0.112
R5	-6.432832	-0.12094	4.77026	1.819	P10	0.25893	0.05980	0.02855	0.280
P17	0.4003287E-01	0.80025	0.01128	12.603	P11	0.07229	0.06635	0.45098	0.345
P15	-0.4285122E-01	-0.19233	0.03461	1.533	P12	-0.08265	-0.08685	0.59097	0.593
P3	28.65156	0.30081	11.10859	6.652	P13	-0.02456	-0.02847	0.71924	0.063
P6	-0.9103294	-0.28911	0.39362	5.349	P14	-0.10588	-0.10525	0.52889	0.874
P20	-0.3115409E-01	-0.32165	0.01529	4.152	P18	0.05543	0.03931	0.26910	0.121
P7	25.91020	0.14542	19.66282	1.736	P19	0.05998	0.04564	0.30987	0.163
(CONSTANT)	-54.86019				P21	-0.05080	-0.00294	0.00180	0.001
					P24	-0.10649	-0.00294	0.00041	0.001
					R1	0.03246	0.03526	0.63142	0.097
					R4	0.01687	0.02038	0.78093	0.032
					R6	-0.02889	-0.03375	0.73061	0.089
					R7	-0.18589	-0.10279	0.16363	0.833

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C112

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 7

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P23	0.35480	0.12588	0.12588	0.35480	0.9601822E-02	1.51040
R2	0.41731	0.17415	0.04827	0.19150	4.391505	0.09830
R3	0.47279	0.22353	0.04938	0.15261	5.284830	0.13459
P22	0.51121	0.26133	0.03781	0.34397	0.4251069E-02	0.66681
JUR	0.53563	0.28690	0.02557	-0.20377	-9.076888	-0.27024
P16	0.59188	0.35033	0.06343	-0.20760	-0.4111044E-01	-0.36241
R5	0.60039	0.36047	0.01014	-0.21839	-7.751100	-0.14573
P17	0.60819	0.36989	0.00943	-0.08356	0.3344622E-01	0.66858
P15	0.63030	0.39728	0.02738	-0.10538	-0.4483384E-01	-0.20123
P3	0.64180	0.41191	0.01464	0.17342	34.00031	0.35696
P6	0.65429	0.42809	0.01618	-0.09464	-1.136780	-0.36103
P20	0.67309	0.45304	0.02495	-0.02429	-0.1431508	-1.47798
P7	0.68177	0.46481	0.01176	0.07934	10.14585	0.05694
P14	0.68610	0.47074	0.00593	-0.19076	-0.5970769E-01	-0.15894
R7	0.69100	0.47748	0.00674	0.26017	-28.64611	-0.07492
P12	0.69374	0.48128	0.00380	-0.12734	-0.6842597E-02	-0.19385
P1	0.69624	0.48475	0.00347	-0.10595	-0.1440902E-02	0.76233
P9	0.69834	0.48768	0.00293	0.06291	184.4629	0.66755
P10	0.70278	0.49390	0.00622	-0.09103	0.3299382E-01	0.10420
P4	0.70437	0.49613	0.00223	0.03236	0.2484541E-03	0.03014
P11	0.70601	0.49845	0.00232	0.07186	0.2963061E-02	-1.65914
P21	0.70728	0.50024	0.00179	0.33518	-0.5842656E-02	0.17734
P18	0.70855	0.50205	0.00181	-0.02480	0.1177146E-01	-0.07345
P13	0.70990	0.50396	0.00191	-0.06683	-0.2853123E-03	0.02021
R1	0.71086	0.50533	0.00137	-0.13116	0.8331819	0.40980
P8	0.71122	0.50583	0.00050	-0.01790	115.0751	-0.42665
P19	0.71252	0.50768	0.00185	-0.02705	-0.5722867E-01	0.07764
P2	0.71299	0.50835	0.00067	0.14789	3.687520	-0.03682
R6	0.71346	0.50903	0.00068	-0.07562	-1.517771	-0.03682
(CONSTANT)					-102.3506	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C121
VARIABLE(S) ENTERED ON STEP NUMBER 9.. P19
MULTIPLE R 0.75292
R SQUARE 0.56689
ADJUSTED R SQUARE 0.51992
STANDARD ERROR 15.86279

ANALYSIS OF VARIANCE
REGRESSION 9.
RESIDUAL 83.
SUM OF SQUARES 27335.85410
MEAN SQUARE 3037.31712
F 12.07066
P 0.0000

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-17.75106	-0.36851	4.45025	15.910	P1	0.01496	0.01644	0.52299	0.022
P23	0.2281954E-01	2.50300	0.00893	6.530	P2	0.13997	0.14047	0.43616	1.650
P8	-271.2811	-0.67364	110.40698	6.037	P4	-0.06005	-0.06098	0.44659	0.306
P22	-0.2054228E-01	-2.24681	0.00897	5.248	P6	0.03169	0.03280	0.46400	0.088
P3	23.85584	0.17464	10.39276	5.269	P9	-0.00738	-0.00698	0.38682	0.004
P5	0.7109209	0.17439	0.30249	5.523	P10	-0.09493	-0.07600	0.27757	0.476
P13	-0.1028930E-02	-0.18469	0.00044	5.441	P11	-0.01849	-0.02277	0.65687	0.043
P7	50.57685	0.19793	23.34871	4.692	P12	-0.04956	-0.06423	0.72756	0.340
P19	0.1044207	0.54282	0.05369	3.782	P14	-0.09625	-0.11953	0.66801	1.189
(CONSTANT)	-18.33315				P15	0.04263	0.03702	0.32664	0.113

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P16	-0.14636	-0.14710	0.43752	1.814
P17	-0.10819	-0.08392	0.26059	0.582
P18	-0.10803	-0.08847	0.29047	0.617
P20	-0.06279	-0.06098	0.40851	0.306
P21	0.67237	0.04700	0.00212	0.182
P24	1.41487	0.04702	0.00048	0.182
R1	-0.10272	-0.13628	0.76235	1.552
R2	0.00865	0.01203	0.83775	0.012
R3	0.05962	0.08775	0.93804	0.636
R4	0.05203	0.07598	0.92365	0.476
R5	-0.05737	-0.08373	0.92239	0.579
R6	0.01663	0.02420	0.91716	0.048
R7	-0.10935	-0.06811	0.16801	0.382

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C121

VARIABLE LIST 1
REGRESSION LIST 8

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.54570	0.29779	0.29779	-0.54570	-11.28432	-0.23426
P23	0.61168	0.37415	0.07636	0.35568	0.2234137E-01	2.45055
P8	0.65911	0.43443	0.06028	-0.47003	-74.02520	-0.18382
P22	0.68283	0.46625	0.03182	0.34388	-0.1965473E-01	-2.14974
P3	0.70248	0.49347	0.02722	0.00429	13.03782	0.09545
P5	0.71559	0.51207	0.01860	0.20215	0.4344900	0.10658
P13	0.73257	0.53666	0.02459	-0.32057	-0.1614283E-02	-0.28976
P7	0.73970	0.54715	0.01049	0.22178	57.06071	0.22331
P19	0.75292	0.56689	0.01973	-0.38241	-0.3507808E-02	-0.01824
P16	0.75912	0.57626	0.00937	0.13909	-0.1872163E-01	-0.11508
R1	0.76423	0.58405	0.00779	-0.25412	-9.984848	-0.16891
P15	0.76724	0.58866	0.00461	0.18272	0.6368331E-01	0.19931
R5	0.77042	0.59355	0.00489	-0.01500	-8.961617	-0.11749
P1	0.77469	0.60015	0.00660	0.25161	0.2866287E-02	0.26888
P2	0.78500	0.61623	0.01608	-0.18677	25.38018	0.37263
P14	0.78654	0.61865	0.00242	-0.32499	-0.6526589E-01	-0.12114
P10	0.78777	0.62059	0.00194	0.09372	0.2994251E-01	0.42243
P11	0.78983	0.62384	0.00325	0.11079	-0.1916664E-01	-0.13593
R7	0.79092	0.62555	0.00172	0.24312	-20.18650	-0.13768
P4	0.79170	0.62678	0.00123	0.29486	-0.4982030E-03	-0.14570
P9	0.79272	0.62840	0.00162	0.43278	193.5180	0.55766
P20	0.79530	0.63251	0.00410	0.31793	-0.8608304E-01	-0.61974
R6	0.79585	0.63338	0.00087	0.11539	-1.775510	-0.03004
P17	0.79622	0.63397	0.00059	0.08379	0.1450346E-01	0.20216
P12	0.79653	0.63445	0.00048	-0.10879	-0.3978968E-02	-0.03038
R2	0.79661	0.63459	0.00014	-0.08018	0.9181727	0.01433
P18	0.79667	0.63469	0.00010	0.26364	0.2231142E-02	0.02344
(CONSTANT)					-88.92675	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C130
VARIABLE LIST 1
REGRESSION LIST 9

VARIABLE(S) ENTERED ON STEP NUMBER 9.. P19

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE		F	P
R SQUARE	0.69225	REGRESSION	RESIDUAL			1006.27048	118.57972		
ADJUSTED R SQUARE	0.42274			9.	9056.43429			8.48602	0.0000
STANDARD ERROR	10.88943			83.	9842.11696				

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-13.04686	-0.43265	3.58728	13.228	P3	0.06387	0.07965	0.81006	0.524
P23	0.1152293E-01	2.01893	0.00641	3.235	P4	0.04058	0.03679	0.42789	0.111
P2	20.42426	0.47899	6.61277	9.540	P5	-0.02452	-0.03192	0.88285	0.084
P1	0.2181983E-02	0.32696	0.00099	4.899	P6	0.04632	0.04955	0.59612	0.202
R5	-8.688424	-0.18195	3.90665	4.946	P7	0.07357	0.07765	0.58007	0.497
P8	-125.5458	-0.49798	75.36710	2.775	P9	-0.01742	-0.01500	0.38584	0.018
P14	-0.6007336E-01	-0.17812	0.03135	3.672	P10	0.01847	0.01225	0.22884	0.012
P22	-0.1034173E-01	-1.80682	0.00641	2.601	P11	0.01136	0.01335	0.71895	0.015
P19	0.4414578E-01	0.36658	0.03452	1.636	P12	0.04184	0.05249	0.81970	0.227
(CONSTANT)	15.88869				P13	-0.02604	-0.03275	0.82361	0.088
					P15	0.06288	0.04944	0.32193	0.201
					P16	0.00059	0.00044	0.29084	0.000
					P17	0.03585	0.02355	0.22461	0.045
					P18	-0.06584	-0.06569	0.51828	0.355
					P20	-0.06126	-0.05109	0.36230	0.215
					P21	0.03090	0.00174	0.00165	0.000
					P24	0.06499	0.00174	0.00037	0.000
					R1	-0.03640	-0.04430	0.77118	0.161
					R2	-0.02937	-0.03918	0.92635	0.126
					R3	0.03160	0.04187	0.91415	0.144
					R4	-0.04303	-0.05648	0.89753	0.262
					R6	0.07408	0.09555	0.86644	0.756
					R7	-0.07411	-0.04159	0.16405	0.142

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DEPENDENT VARIABLE.. C130

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1

REGRESSION LIST 9

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.46583	0.21700	0.21700	-0.46583	-7.285253	-0.24159
P23	0.56788	0.32249	0.10549	0.39150	0.1043368E-01	1.82808
P2	0.60046	0.36055	0.03806	-0.07964	22.89909	0.53703
P1	0.62936	0.39609	0.03554	0.19778	0.1601144E-02	0.23992
R5	0.64688	0.41845	0.02235	-0.13114	-9.523512	-0.19943
P8	0.66429	0.44129	0.02284	-0.34386	9.075658	0.03600
P14	0.67483	0.45539	0.01410	-0.33802	-0.5410346E-01	-0.16041
P22	0.68480	0.46895	0.01356	0.38481	-0.3017196E-02	-0.52714
P19	0.69225	0.47921	0.01026	-0.27084	-0.5800720E-01	-0.48168
R6	0.69568	0.48397	0.00475	0.16980	4.970756	0.13432
P3	0.69881	0.48833	0.00436	0.02334	15.69975	0.18359
P12	0.70100	0.49141	0.00308	-0.02701	0.1119272E-01	0.13650
R3	0.70412	0.49578	0.00438	0.03601	3.184216	0.09032
P18	0.70629	0.49884	0.00305	0.11906	-0.1082951E-01	-0.18172
P7	0.71502	0.51126	0.01242	0.10891	34.55365	0.21601
P10	0.71972	0.51799	0.00673	0.06240	0.7565911E-01	1.70503
P20	0.72545	0.52628	0.00829	0.22242	-0.2174751	-2.50094
P9	0.74465	0.55450	0.02822	0.33899	316.9651	1.45904
P4	0.74859	0.56039	0.00588	0.25661	0.3328648E-03	0.15550
P16	0.75113	0.56420	0.00381	0.05603	0.2728409E-01	0.26790
R7	0.75241	0.56612	0.00193	0.27720	-12.91024	-0.14065
P17	0.75342	0.56764	0.00151	0.06152	-0.1929361E-01	-0.42958
P11	0.75539	0.57062	0.00298	0.16141	0.9650784E-02	0.10933
P15	0.75617	0.57179	0.00117	0.15871	0.1900843E-01	0.09503
P6	0.75725	0.57343	0.00165	-0.07887	-0.1932052	-0.06834
P21	0.75811	0.57473	0.00129	0.37722	-0.2911502E-02	-0.92089
P5	0.75870	0.57562	0.00090	0.12367	-0.1019561	-0.03995
R2	0.75879	0.57576	0.00014	-0.05631	-0.8436047	-0.02103
P13	0.75888	0.57590	0.00014	-0.14152	0.5864277E-04	0.01681
(CONSTANT)					-125.8459	

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DEPENDENT VARIABLE.. C139

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VARIABLE LIST 1

REGRESSION LIST 10

VARIABLE(S) ENTERED ON STEP NUMBER 8.. P1

MULTIPLE R	0.63785	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.40685	REGRESSION		8.	4639.83875	579.97984	7.20210	0.0000
ADJUSTED R SQUARE	0.35036	RESIDUAL		84.	6764.45730	80.52925		
STANDARD ERROR	8.97381							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-11.32767	-0.48356	2.61835	18.717	P2	0.21184	0.11950	0.18877	1.203
R5	-6.856724	-0.18484	3.29376	4.334	P3	0.04366	0.04182	0.54401	0.145
P8	-50.26959	-0.25668	20.61101	5.949	P4	0.07956	0.06647	0.41412	0.368
P6	0.3030721	0.13801	0.21013	2.080	P5	-0.00916	-0.01139	0.91712	0.011
P16	-0.1725350E-01	-0.21809	0.00887	3.783	P7	0.07870	0.08524	0.69583	0.608
R4	-3.405465	-0.11175	2.63979	1.664	P9	0.13932	0.11407	0.39762	1.094
P11	0.8379385E-02	0.12220	0.00616	1.853	P10	0.15450	0.08643	0.18563	0.625
P1	0.7287135E-03	0.14057	0.00056	1.669	P12	0.06101	0.06918	0.76257	0.399
(CONSTANT)	15.26986				P13	0.02193	0.02708	0.90516	0.061

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P2	0.21184	0.11950	0.18877	1.203
P3	0.04366	0.04182	0.54401	0.145
P4	0.07956	0.06647	0.41412	0.368
P5	-0.00916	-0.01139	0.91712	0.011
P7	0.07870	0.08524	0.69583	0.608
P9	0.13932	0.11407	0.39762	1.094
P10	0.15450	0.08643	0.18563	0.625
P12	0.06101	0.06918	0.76257	0.399
P13	0.02193	0.02708	0.90516	0.061
P14	0.03662	0.03827	0.64775	0.122
P15	0.04067	0.03586	0.46124	0.107
P17	0.07253	0.03892	0.17077	0.126
P18	0.09891	0.08979	0.48877	0.675
P19	0.18851	0.05592	0.05220	0.260
P20	0.13642	0.09540	0.29003	0.762
P21	0.03846	0.04713	0.89075	0.185
P22	0.04259	0.05220	0.89105	0.227
P23	0.04734	0.05786	0.88595	0.279
P24	0.04193	0.05135	0.88967	0.219
R1	-0.04039	-0.04535	0.74791	0.171
R2	-0.05317	-0.06662	0.93122	0.370
R3	-0.00203	-0.00245	0.86058	0.000
R6	0.08655	0.10235	0.82957	0.879
R7	0.01578	0.01978	0.93207	0.032

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC--1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C139 REGRESSION LIST 10

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.53427	0.28545	0.28545	-0.53427	-7.854509	-0.33530
R5	0.55933	0.31285	0.02741	-0.09985	-6.397358	-0.17246
P8	0.57945	0.33576	0.02291	-0.34327	-14.57738	-0.07443
P6	0.59735	0.35683	0.02107	0.02435	0.1993227	0.09077
P16	0.60938	0.37135	0.01452	0.17400	0.1233169E-02	0.01559
R4	0.61996	0.38435	0.01300	-0.04727	-1.902026	-0.06241
P11	0.62854	0.39506	0.01072	0.21201	0.1117256E-01	0.16293
P1	0.63785	0.40685	0.01179	0.32243	0.1037751E-02	0.20018
P2	0.64445	0.41532	0.00847	-0.25300	7.385530	0.22297
P7	0.64898	0.42117	0.00585	0.11317	24.76967	0.19933
P10	0.65494	0.42895	0.00778	0.16161	0.5206464E-01	1.51041
R6	0.65910	0.43441	0.00546	0.17063	3.448358	0.11995
P17	0.66346	0.44017	0.00577	0.15239	-0.2521448E-01	-0.72270
P5	0.66502	0.44225	0.00207	0.07405	-0.1984350	-0.10009
P15	0.66611	0.44371	0.00146	0.19703	0.8768566E-02	0.05643
P9	0.66723	0.44519	0.00148	0.37299	194.9271	1.15507
P20	0.67959	0.46184	0.01664	0.28407	-0.1102165	-1.63162
P19	0.68131	0.46418	0.00234	-0.23972	-0.2880953E-01	-0.30796
P3	0.68281	0.46624	0.00206	-0.03222	6.193996	0.09324
P12	0.68467	0.46878	0.00254	-0.06774	0.4656033E-02	0.07310
P23	0.68556	0.46999	0.00121	0.18635	0.4218032E-02	0.95136
R7	0.68893	0.47462	0.00463	0.06352	-14.31637	-0.20078
P21	0.69169	0.47844	0.00382	0.18788	-0.1721554E-02	-0.70096
R3	0.69257	0.47965	0.00121	0.06149	1.587187	0.05796
P4	0.69337	0.48076	0.00111	0.22735	-0.1260346E-03	-0.07579
P13	0.69383	0.48140	0.00064	-0.12544	0.1253751E-03	0.04628
P18	0.69428	0.48203	0.00063	0.23655	-0.2995587E-02	-0.06471
P14	0.69466	0.48256	0.00052	-0.21865	0.9421062E-02	0.03596
(CONSTANT)					-63.34238	

ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C144

VARIABLE LIST 1
REGRESSION LIST 11

VARIABLE(S) ENTERED ON STEP NUMBER 8.. P5

MULTIPLE R	0.68315	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.46669	REGRESSION	8.	190020.57698	23752.57212	9.18844	0.0000
ADJUSTED R SQUARE	0.41590	RESIDUAL	84.	217144.17408	2585.04969		
STANDARD ERROR	50.84338						

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P23	0.1290144	4.86995	0.03731	11.955	P1	0.01347	0.01155	0.39257	0.011
P22	-0.2109112	-7.93873	0.07463	7.988	P2	0.03899	0.02861	0.28713	0.068
JUR	-46.04608	-0.32897	13.91243	10.954	P3	0.07356	0.08724	0.75023	0.637
P16	-0.1683942	-0.35623	0.05582	9.100	P6	0.03345	0.04130	0.81298	0.142
P21	0.4968345E-01	3.38557	0.02491	3.979	P7	-0.02772	-0.03658	0.92893	0.111
R4	28.87993	0.15860	14.73895	3.839	P8	0.06392	0.07025	0.64418	0.412
P4	0.1750004E-02	0.17613	0.00110	2.520	P9	-0.06820	-0.04367	0.21865	0.159
P5	1.368037	0.11548	0.97404	1.973	P10	0.08706	0.07009	0.34566	0.410
(CONSTANT)	10.96325				P11	-0.03681	-0.04618	0.83933	0.177

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P12	-0.02730	-0.03397	0.82557	0.096
P13	0.03697	0.04779	0.89086	0.190
P14	-0.08480	-0.09691	0.69650	0.787
P15	0.07028	0.07259	0.56893	0.440
P17	0.02901	0.02340	0.34692	0.045
P18	-0.03774	-0.03535	0.46788	0.104
P19	0.05411	0.06503	0.77031	0.353
P20	0.00562	0.00322	0.17526	0.001
P24	999999.99999	99999.99999	-0.00000	99999.999
R1	0.05125	0.06321	0.81122	0.333
R2	-0.03662	-0.04745	0.89537	0.187
R3	0.06348	0.08187	0.88691	0.560
R5	0.02913	0.03645	0.83492	0.110
R6	-0.10361	-0.13320	0.88147	1.499
R7	0.03229	0.01754	0.15742	0.026

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C144 REGRESSION LIST 11

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P23	0.44129	0.19474	0.19474	0.44129	0.1251796	4.72520
P22	0.52854	0.27935	0.08461	0.41712	-0.1997934	-7.52025
JUR	0.56665	0.32110	0.04174	-0.23945	-43.29105	-0.30929
P16	0.62040	0.38489	0.06380	-0.18344	-0.1939770	-0.41035
P21	0.64536	0.41650	0.03160	0.41294	0.4495161E-01	3.06313
R4	0.66370	0.44049	0.02400	0.17201	22.98671	0.12623
P4	0.67392	0.45417	0.01368	0.20646	0.1789680E-02	0.18012
P5	0.68315	0.46669	0.01252	0.20104	1.148436	0.09695
R6	0.69004	0.47615	0.00946	-0.04468	-16.68837	-0.09716
P14	0.69342	0.48083	0.00468	-0.26147	-0.2733265	-0.17459
P10	0.69679	0.48552	0.00469	-0.01149	0.1137616	0.55233
P11	0.70219	0.49307	0.00755	0.04589	-0.2908530E-01	-0.07099
R2	0.70502	0.49705	0.00399	-0.16564	-19.66156	-0.10561
P2	0.70716	0.50008	0.00302	0.15079	16.68345	0.08429
P17	0.70867	0.50221	0.00214	-0.04800	-0.3397917E-01	-0.16299
P3	0.70947	0.50335	0.00114	0.00322	41.87618	0.10550
P6	0.71139	0.50608	0.00273	-0.07863	-1.260490	-0.09606
R5	0.71219	0.50722	0.00114	-0.01968	-10.46507	-0.04721
P9	0.71293	0.50826	0.00105	0.25459	-1.124326	-0.00112
P8	0.71307	0.50847	0.00021	-0.11796	322.9460	0.27598
P19	0.71368	0.50934	0.00087	-0.10581	-0.1603209	-0.28681
P1	0.71382	0.50954	0.00020	-0.14388	0.8021122E-03	0.02589
P15	0.71392	0.50969	0.00014	0.14755	0.2753639E-01	0.02966
P18	0.71398	0.50977	0.00008	-0.03626	0.4983799E-02	0.01802
P20	0.71404	0.50985	0.00008	0.15623	-0.4097532E-01	-0.10152
(CONSTANT)					-101.6723	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C160
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P19
VARIABLE LIST 1
REGRESSION LIST 12

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.62607	REGRESSION	11.					
ADJUSTED R SQUARE	0.30939	RESIDUAL	81.		10554.81850	130.30640	4.74681	0.0000
STANDARD ERROR	11.41518							

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.7046087E-01	-0.84547	0.01586	19.732	P1	-0.02163	-0.01901	0.46992	0.029
P15	-0.2288662E-01	-0.11938	0.02948	0.603	P2	0.05546	0.04058	0.32552	0.132
P14	0.8572618E-01	0.26521	0.03407	6.331	P4	-0.05821	-0.03487	0.21823	0.097
P8	98.42251	0.40734	122.34049	0.647	P5	0.05478	0.06399	0.82975	0.329
R7	15.81703	0.17980	8.39511	3.550	P6	-0.04504	-0.03720	0.41496	0.111
P3	19.48953	0.23780	8.12512	5.754	P7	0.07536	0.05133	0.28205	0.211
P18	0.1846166E-01	0.32324	0.00778	5.624	P9	-0.32644	-0.08637	0.04257	0.601
R1	-5.437624	-0.15332	3.45762	2.473	P10	0.38471	0.07692	0.02430	0.476
P16	-0.4851364E-01	-0.49704	0.01703	8.119	P11	-0.04530	-0.03766	0.42038	0.114
P17	0.3576553E-01	0.83090	0.01263	8.024	P12	0.01378	0.01443	0.66688	0.017
P19	-0.1021432	-0.88499	0.06287	2.640	P13	-0.03886	-0.04449	0.79694	0.159
(CONSTANT)	-42.17530				P21	-0.17448	-0.10210	0.20821	0.843

P22	-0.17519	-0.09786	0.18974	0.774
P23	-0.16309	-0.08744	0.17478	0.616
P24	-0.17383	-0.09788	0.19278	0.774
JUR	-0.03585	-0.03132	0.46407	0.079
R2	-0.02987	-0.03309	0.74618	0.088
R3	-0.03455	-0.04124	0.86626	0.136
R4	-0.05831	-0.07011	0.87919	0.395
R5	0.01777	0.02101	0.84927	0.035
R6	0.10017	0.12060	0.88144	1.181

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL GRADE LEVELS COMBINED
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C160

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 12

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.34237	0.11722	0.11722	-0.34237	-0.9679605E-02	-0.11615
P15	0.38850	0.15094	0.03372	-0.33248	-0.2971898E-01	-0.15502
P14	0.41902	0.17558	0.02465	0.08527	0.8064616E-01	0.24949
P8	0.45704	0.20889	0.03330	0.02600	15.63313	0.06470
R7	0.49551	0.24553	0.03665	0.06297	31.46906	0.35771
P3	0.51546	0.26570	0.02017	0.23053	18.82994	0.22975
P18	0.54199	0.29376	0.02806	-0.10948	0.9921669E-02	0.17371
R1	0.55976	0.31333	0.01957	-0.08501	-5.307453	-0.14965
P16	0.57596	0.33173	0.01840	-0.33135	-0.6365515E-01	-0.65217
P17	0.61004	0.37215	0.04042	-0.27891	0.2929484E-01	0.68057
P19	0.62607	0.39196	0.01981	-0.05974	-0.5296242E-01	-0.45888
R6	0.63309	0.40080	0.00884	0.09793	3.397033	0.09578
P21	0.63785	0.40685	0.00605	-0.03584	-0.9529565E-03	-0.31450
P10	0.64117	0.41110	0.00425	-0.31229	0.2353705E-02	0.05534
P7	0.64432	0.41515	0.00405	0.20527	22.37475	0.14594
JUR	0.64596	0.41727	0.00212	0.25467	-3.246998	-0.11235
P9	0.64906	0.42128	0.00402	-0.33081	-121.2397	-0.58231
R5	0.65060	0.42328	0.00200	-0.07931	1.461357	0.03193
P5	0.65152	0.42447	0.00119	-0.06686	0.1023175	0.04183
P1	0.65224	0.42542	0.00094	-0.21421	0.3848139E-03	0.06017
R4	0.65258	0.42586	0.00044	-0.08686	-1.149321	-0.03057
P11	0.65296	0.42635	0.00050	-0.20699	-0.3556851E-02	-0.04204
P6	0.65321	0.42668	0.00033	-0.00839	-0.8577880E-01	-0.03166
P13	0.65353	0.42710	0.00042	-0.07300	-0.8086725E-04	-0.02419
P23	0.65365	0.42726	0.00015	-0.01883	0.6997396E-03	0.12792
(CONSTANT)					-33.18642	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C161
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P12
MULTIPLE R 0.55563
R SQUARE 0.30872
ADJUSTED R SQUARE 0.25179
STANDARD ERROR 2.77351

ANALYSIS OF VARIANCE
REGRESSION 7.
RESIDUAL 85.
SUM OF SQUARES 292.00773
MEAN SQUARE 41.71539
F 5.42295
P 0.0000

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F
P2	-2.863832	-0.30022	0.95431	9.006
P9	-13.28417	-0.27333	5.05725	6.900
R6	-1.464748	-0.17692	0.78640	3.469
P13	-0.1653614E-03	-0.21193	0.00007	4.943
R2	1.716880	0.19133	0.87312	3.867
R7	-2.720721	-0.13249	1.99646	1.857
P12	0.2035609E-02	0.11097	0.00170	1.427
(CONSTANT)	38.91870			

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	0.07628	0.05183	0.31917	0.226
P3	-0.01617	-0.01630	0.70224	0.022
P4	-0.02257	-0.01463	0.29060	0.018
P5	-0.06200	-0.07010	0.88378	0.415
P6	-0.10121	-0.11573	0.90385	1.140
P7	-0.05226	-0.06027	0.91935	0.306
P8	-0.02702	-0.02316	0.50778	0.045
P10	-0.00940	-0.00840	0.55209	0.006
P11	0.03515	0.03667	0.75248	0.113
P14	0.05585	0.06271	0.87144	0.332
P15	-0.07707	-0.07970	0.73944	0.537
P16	-0.08817	-0.06430	0.36766	0.349
P17	0.02703	0.02398	0.54413	0.048
P18	-0.00749	-0.00674	0.55943	0.004
P19	0.01542	0.01505	0.65881	0.019
P20	-0.13310	-0.05363	0.11224	0.242
P21	0.13560	0.07615	0.21804	0.490
P22	0.17268	0.09223	0.19719	0.721
P23	0.17308	0.08874	0.18170	0.667
P24	0.15563	0.08392	0.20101	0.596
JUR	-0.03181	-0.02541	0.44102	0.054
R1	-0.05304	-0.05610	0.77343	0.265
R3	0.04575	0.04730	0.73880	0.188
R4	0.03517	0.03950	0.87183	0.131
R5	-0.03695	-0.04064	0.83602	0.139

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C161 REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P2	0.28550	0.08151	0.08151	-0.28550	-3.823143	-0.40078
P9	0.45452	0.20659	0.12507	-0.25548	-1.737236	-0.03574
R6	0.48255	0.23286	0.02627	-0.25033	-1.648142	-0.19908
P13	0.50336	0.25337	0.02051	-0.17589	-0.1529914E-03	-0.19608
R2	0.53160	0.28260	0.02923	0.21724	0.8276691	0.09224
R7	0.54508	0.29711	0.01452	-0.23171	-7.908359	-0.38511
P12	0.55563	0.30872	0.01161	-0.00588	0.1266278E-02	0.06903
P6	0.56390	0.31798	0.00926	-0.04102	-0.1334607	-0.21103
P7	0.56986	0.32474	0.00676	0.00628	-3.774476	-0.10547
P22	0.57521	0.33087	0.00613	-0.18806	0.6542757E-02	5.10956
P21	0.58225	0.33902	0.00815	-0.19370	-0.2361045E-02	-3.33808
P23	0.59092	0.34918	0.01016	-0.19805	-0.1934520E-02	-1.51507
P18	0.59386	0.35267	0.00349	0.00231	0.6682708E-03	0.05012
P16	0.60093	0.36111	0.00844	0.09226	-0.3170120E-02	-0.13914
P17	0.60837	0.37011	0.00900	0.00934	0.4774831E-02	0.47521
P10	0.61264	0.37533	0.00522	-0.02426	-0.1888629E-02	-0.19025
P3	0.61654	0.38012	0.00479	-0.03068	1.648058	0.08615
P15	0.61968	0.38401	0.00389	-0.11688	-0.8588622E-02	-0.19192
P20	0.62278	0.38785	0.00385	-0.21773	-0.6878761E-02	-0.35359
P1	0.62766	0.39396	0.00610	0.24202	-0.2451863E-03	-0.16423
P8	0.62948	0.39624	0.00228	0.06590	-39.47270	-0.69986
P19	0.63451	0.40260	0.00636	0.07499	0.1896514E-01	0.70393
P5	0.63638	0.40498	0.00238	-0.20789	-0.3929415E-01	-0.06882
P4	0.63805	0.40711	0.00213	-0.19735	-0.6071540E-04	-0.12678
R1	0.63899	0.40831	0.00120	0.04006	-0.3937048	-0.04756
P14	0.63913	0.40849	0.00018	0.02766	0.1433917E-02	0.01900
(CONSTANT)					41.01417	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *

VARIABLE LIST 1
REGRESSION LIST 2

DEPENDENT VARIABLE.. C162

VARIABLE(S) ENTERED ON STEP NUMBER 9.. R1

MULTIPLE R	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
0.55955	REGRESSION	9.	148.47056	16.49673	4.20346	0.0002
0.31309	RESIDUAL	83.	325.73830	3.92456		
ADJUSTED R SQUARE						
0.23861						
STANDARD ERROR						
1.98105						

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	----- VARIABLES NOT IN THE EQUATION -----						
P20	-0.8607345E-02	-0.62487	0.00267	10.384	P1	-0.09151	-0.06031	0.29833	0.299		
JUR	-0.5158651	-0.10799	0.65513	0.620	P3	0.05717	0.06328	0.84148	0.330		
R6	-0.8427568	-0.14377	0.56608	2.216	P4	0.11512	0.06651	0.22932	0.364		
P16	-0.1155552E-01	-0.71629	0.00346	11.155	P5	0.02195	0.02436	0.84651	0.049		
P2	-2.463279	-0.36469	1.15193	4.573	P6	-0.08456	-0.08311	0.66348	0.570		
P17	0.3598880E-02	0.50585	0.00151	5.656	P7	-0.00667	-0.00626	0.60597	0.003		
P8	-11.21451	-0.28082	5.71937	3.845	P9	0.15145	0.03427	0.03518	0.096		
P14	0.8496467E-02	0.15903	0.00627	1.834	P10	-0.17076	-0.03496	0.02879	0.100		
R1	-0.8118080	-0.13849	0.60052	1.827	P11	0.00938	0.00770	0.46289	0.005		
(CONSTANT)	38.05838				P12	-0.03155	-0.03405	0.80015	0.095		

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P13	-0.05346	-0.05643	0.76550	0.262
P15	-0.08282	-0.06068	0.36882	0.303
P18	0.00242	0.00199	0.46517	0.000
P19	0.26920	0.05743	0.03126	0.271
P21	-0.00445	-0.00468	0.75958	0.002
P22	-0.00193	-0.00203	0.76048	0.000
P23	-0.00204	-0.00213	0.75306	0.000
P24	-0.00317	-0.00332	0.75757	0.001
R2	0.07719	0.08452	0.82364	0.590
R3	0.04651	0.04964	0.78233	0.203
R4	-0.07296	-0.08222	0.87230	0.558
R5	-0.06263	-0.06987	0.85480	0.402
R7	0.01424	0.01550	0.81443	0.020

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C162

M U L T I P L E R E G R E S S I O N

VARIABLE LIST 1
REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.37697	0.14211	0.14211	-0.37697	-0.8882889E-02	-0.64488
JUR	0.40968	0.16784	0.02573	0.04608	-0.5397132	-0.11299
R6	0.42998	0.18489	0.01705	-0.16798	-0.4764155	-0.08127
P16	0.44825	0.20093	0.01604	-0.29266	-0.1064719E-01	-0.65999
P2	0.47952	0.22994	0.02901	-0.00665	-3.867892	-0.57265
P17	0.50386	0.25388	0.02394	-0.23208	0.3670608E-02	0.51593
P8	0.53417	0.28533	0.03146	0.08524	-36.98683	-0.92616
P14	0.54586	0.29797	0.01263	-0.08536	0.6580929E-02	0.12318
R1	0.55955	0.31309	0.01512	-0.00876	-0.1097929	-0.01873
R2	0.56391	0.31800	0.00491	0.17461	0.4541900	0.07149
P4	0.56916	0.32395	0.00595	-0.27870	0.7060496E-04	0.20822
R3	0.57480	0.33039	0.00644	0.09436	0.5325384	0.09536
P6	0.57926	0.33554	0.00515	0.01605	-0.8591423E-01	-0.19186
P3	0.58676	0.34429	0.00875	0.15562	2.048586	0.15123
P1	0.59118	0.34949	0.00520	-0.00924	-0.2097353E-03	-0.19840
P19	0.59641	0.35571	0.00622	0.05443	0.1438765E-01	0.75421
P15	0.59894	0.35873	0.00302	-0.16718	-0.3556092E-02	-0.11223
P11	0.59981	0.35977	0.00104	-0.13156	0.1058132E-02	0.07567
P13	0.60099	0.36119	0.00142	-0.00874	0.3152846E-04	0.05707
R7	0.60165	0.36199	0.00079	-0.05759	1.084834	0.07461
P21	0.60265	0.36319	0.00121	-0.06596	-0.2788468E-03	-0.55678
P22	0.60314	0.36377	0.00058	-0.06483	0.4518685E-03	0.49838
P5	0.60354	0.36426	0.00049	-0.04596	0.1195489E-01	0.02957
P18	0.60386	0.36465	0.00039	-0.21974	-0.4800238E-03	-0.05085
P10	0.60405	0.36488	0.00023	-0.26890	-0.1176615E-02	-0.16739
P9	0.60418	0.36504	0.00015	-0.31181	-3.892034	-0.11310
P7	0.60427	0.36514	0.00011	0.01689	0.5346383	0.02110
(CONSTANT)					39.14201	


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(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE      NONAME      (CREATION DATE = 08/25/80)
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DEPENDENT VARIABLE..      C163
MULTIPLE REGRESSION
VARIABLE LIST 1
REGRESSION LIST 3

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		ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
MULTIPLE R	0.49097						
R SQUARE	0.24105	REGRESSION	10.	129.88070	12.98807	2.60444	0.0085
ADJUSTED R SQUARE	0.14850	RESIDUAL	82.	408.92495	4.98689		
STANDARD ERROR	2.23313						

----- VARIABLES IN THE EQUATION -----					----- VARIABLES NOT IN THE EQUATION -----					
VARIABLE	B	BETA	STD ERROR	B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.7049323E-02	-0.48011	0.00261		7.318	P1	-0.13381	-0.08305	0.29233	0.56
JUR	-1.136627	-0.22323	0.74064		2.355	P4	0.08675	0.04682	0.22107	0.17
P3	4.267750	0.29557	1.86543		5.234	P5	0.00208	0.00220	0.84832	0.00
R1	-1.235880	-0.19779	0.68018		3.301	P7	0.00893	0.00813	0.62988	0.00
P14	0.7200674E-02	0.12644	0.00718		1.005	P8	-0.14486	-0.10295	0.38330	0.86
R6	-0.6397770	-0.10239	0.63858		1.004	P9	-0.18408	-0.03961	0.03514	0.12
P16	-0.8713358E-02	-0.50670	0.00392		4.946	P10	-0.31058	-0.06540	0.03366	0.34
P17	0.3982440E-02	0.52514	0.00179		4.948	P11	-0.08084	-0.06247	0.45319	0.31
P6	-0.1139233	-0.23867	0.06817		2.793	P12	-0.02199	-0.02087	0.68381	0.03
P2	-1.554844	-0.21596	1.30343		1.423	P13	-0.02423	-0.02494	0.80408	0.05
(CONSTANT)	32.46538					P15	0.04319	0.02930	0.34942	0.07

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DEPENDENT VARIABLE.. C163

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M U L T I P L E

R E G R E S S I O N

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VARIABLE LIST 1

REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.24230	0.05871	0.05871	-0.24230	0.8945700E-03	0.06093
JUR	0.30381	0.09230	0.03359	-0.04016	-1.385650	-0.27214
P3	0.34778	0.12095	0.02865	0.21865	4.655222	0.32240
R1	0.37012	0.13699	0.01604	-0.08978	-1.109800	-0.17761
P14	0.39665	0.15733	0.02035	-0.02090	0.5547579E-02	0.09741
R6	0.41680	0.17372	0.01639	-0.12391	-0.8272547	-0.13239
P16	0.43154	0.18623	0.01251	-0.19757	-0.1116337E-01	-0.64918
P17	0.45298	0.20519	0.01896	-0.12394	0.7286110E-02	0.96077
P6	0.47737	0.22788	0.02269	0.03523	-0.1119686	-0.23457
P2	0.49097	0.24105	0.01317	0.01522	-2.541272	-0.35297
P8	0.49910	0.24910	0.00804	0.06803	-10.48388	-0.24628
P1	0.50584	0.25587	0.00678	-0.04225	-0.1505198E-03	-0.13358
R2	0.51166	0.26179	0.00592	0.11312	-0.4960798	-0.07325
P11	0.51284	0.26301	0.00122	-0.13935	-0.8432975E-03	-0.05658
R3	0.51389	0.26409	0.00108	0.11136	0.1879508	-0.03158
P9	0.51453	0.26474	0.00066	-0.21454	-17.71666	-0.48299
P10	0.51597	0.26622	0.00148	-0.14913	-0.4735858E-02	-0.63207
P19	0.51790	0.26822	0.00199	0.05631	0.3427212E-02	0.16854
P5	0.51899	0.26935	0.00113	-0.06200	0.2007093E-01	0.04658
P21	0.51953	0.26991	0.00057	-0.05263	0.3136710E-04	0.05876
R7	0.52064	0.27107	0.00116	-0.05223	1.435341	0.09261
P7	0.52127	0.27172	0.00065	-0.04458	-2.600193	-0.09627
P18	0.52289	0.27341	0.00169	-0.16038	0.1004482E-02	0.09982
P4	0.52314	0.27368	0.00027	-0.17827	0.1493373E-04	0.04132
P23	0.52343	0.27398	0.00031	-0.05743	-0.1684872E-03	-0.17483
P12	0.52359	0.27414	0.00016	-0.12489	-0.2334946E-03	-0.01686
(CONSTANT)					38.30457	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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DEPENDENT VARIABLE.. C164
VARIABLE(S) ENTERED ON STEP NUMBER 10.. P1

MULTIPLE REGRESSION
VARIABLE LIST 1
REGRESSION LIST 4

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.52017	REGRESSION		10.	161.45040	16.14504	3.04173	0.0025
ADJUSTED R SQUARE	0.18162	RESIDUAL		82.	435.24297	5.30784		
STANDARD ERROR	2.30388							

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.5728203E-02	-0.37072	0.00268	4.567	P4	0.13677	0.07201	0.20218	0.422
JUR	-1.163272	-0.21710	0.75369	2.382	P7	0.03483	0.03217	0.62221	0.084
P3	4.676623	0.30777	1.93629	5.833	P8	-0.12062	-0.08807	0.38891	0.633
P5	-0.4854378E-01	-0.10704	0.04524	1.151	P9	0.28740	0.06130	0.03318	0.306
P16	-0.1237340E-01	-0.68375	0.00404	9.391	P10	-0.38756	-0.08238	0.03296	0.553
P2	-4.440453	-0.58607	1.70285	6.800	P11	0.02225	0.01752	0.45249	0.025
P14	0.5337314E-02	0.08906	0.00746	0.512	P12	-0.02295	-0.02202	0.67106	0.039
P17	0.3819662E-02	0.47862	0.00183	4.373	P13	0.02738	0.02897	0.81671	0.068
P6	-0.1491095	-0.29684	0.07047	4.478	P15	0.00123	0.00085	0.35461	0.000
P1	-0.2605697E-03	-0.21974	0.00020	1.653	P18	0.05542	0.04399	0.45951	0.157
(CONSTANT)	36.33035				P19	-0.12393	-0.08388	0.33412	0.574

P21	-0.00224	-0.00230	0.76694	0.000
P22	-0.00218	-0.00223	0.76693	0.000
P23	0.00026	0.00026	0.76046	0.000
P24	-0.00157	-0.00161	0.76501	0.000
R1	-0.03556	-0.03625	0.75781	0.107
R2	-0.06915	-0.07351	0.82441	0.440
R3	0.03237	0.03642	0.92327	0.108
R4	0.01033	0.01153	0.90872	0.011
R5	0.04515	0.04924	0.86747	0.197
R6	0.00603	0.00668	0.89560	0.004
R7	0.00938	0.00995	0.82231	0.008

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DEPENDENT VARIABLE.. C164

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M U L T I P L E

R E G R E S S I O N

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VARIABLE LIST 1

REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.26027	0.06774	0.06774	-0.26027	-0.1451080E-01	-0.93912
JUR	0.33580	0.11276	0.04503	-0.05648	-1.322819	-0.24687
P3	0.36339	0.13205	0.01929	0.19278	5.490817	0.36136
P5	0.38164	0.14565	0.01360	-0.12885	-0.3974778E-01	-0.08765
P16	0.40087	0.16070	0.01505	-0.20581	-0.1052928E-01	-0.58185
P2	0.43028	0.18514	0.02444	-0.04440	-4.508171	-0.59501
P14	0.46080	0.21234	0.02720	-0.03477	0.8806802E-02	0.14695
P17	0.47148	0.22230	0.00996	-0.14600	0.4719371E-02	0.59136
P6	0.50583	0.25587	0.03357	0.02049	-0.1338792	-0.26652
P1	0.52017	0.27058	0.01471	-0.00463	-0.3461056E-03	-0.29187
P8	0.52558	0.27623	0.00566	0.07178	-0.9254425	-0.02066
R2	0.52916	0.28001	0.00377	0.06434	-0.6984657	-0.09800
P13	0.53281	0.28389	0.00388	-0.01484	0.6741009E-04	0.10877
P11	0.53522	0.28646	0.00257	-0.10423	0.1637177E-02	0.10438
P4	0.53774	0.28916	0.00270	-0.18414	0.2488712E-04	0.06543
R5	0.53869	0.29019	0.00103	-0.01227	0.5064802	0.05969
P9	0.53951	0.29107	0.00088	-0.20856	8.648623	0.22405
P15	0.54031	0.29194	0.00086	-0.06059	-0.1858809E-02	-0.05230
R7	0.54119	0.29289	0.00095	-0.04348	0.7812745	0.04790
R3	0.54181	0.29356	0.00067	0.04536	0.2243137	0.03581
P18	0.54221	0.29399	0.00044	-0.15891	0.7891712E-03	0.07453
P7	0.54259	0.29441	0.00041	-0.00581	-1.589650	-0.05593
P19	0.54293	0.29477	0.00036	0.05096	-0.3070924E-02	-0.14351
P21	0.54317	0.29504	0.00027	-0.03419	-0.1198460E-03	-0.21333
P23	0.54353	0.29543	0.00039	-0.03703	0.2032510E-03	0.20041
R4	0.54370	0.29561	0.00019	0.01154	0.1168716	0.01677
P12	0.54383	0.29575	0.00014	-0.10485	-0.2321242E-03	-0.01593
(CONSTANT)					33.96463	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C165
VARIABLE(S) ENTERED ON STEP NUMBER 12.. P1
VARIABLE LIST 1
REGRESSION LIST 5

MULTIPLE R	0.56180	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.31562	REGRESSION		12.	182.30719	15.19227	3.07451	0.0013
ADJUSTED R SQUARE	0.21296	RESIDUAL		80.	395.30839	4.94135		
STANDARD ERROR	2.22292							

----- VARIABLES IN THE EQUATION -----										----- VARIABLES NOT IN THE EQUATION -----									
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.1417322E-01	-0.93230	0.00987	2.063	P4	0.14368	0.07579	0.19042	0.456	P4	0.14368	0.07579	0.19042	0.456	P4	0.14368	0.07579	0.19042	0.456
JUR	-0.8896589	-0.16875	0.77247	1.326	P8	-0.08823	-0.06490	0.37021	0.334	P8	-0.08823	-0.06490	0.37021	0.334	P8	-0.08823	-0.06490	0.37021	0.334
P5	-0.5029782E-01	-0.11273	0.04436	1.286	P10	0.01152	0.00205	0.02176	0.000	P10	0.01152	0.00205	0.02176	0.000	P10	0.01152	0.00205	0.02176	0.000
P3	5.051087	0.33786	1.88130	7.209	P11	0.06681	0.05422	0.45070	0.233	P11	0.06681	0.05422	0.45070	0.233	P11	0.06681	0.05422	0.45070	0.233
P14	0.1082799E-01	0.18364	0.00726	2.225	P12	-0.09044	-0.08950	0.67031	0.638	P12	-0.09044	-0.08950	0.67031	0.638	P12	-0.09044	-0.08950	0.67031	0.638
P9	15.60222	0.41081	19.41353	0.646	P13	0.04595	0.05012	0.81413	0.199	P13	0.04595	0.05012	0.81413	0.199	P13	0.04595	0.05012	0.81413	0.199
P2	-4.127998	-0.55376	1.67211	6.095	P15	0.12821	0.08687	0.31419	0.601	P15	0.12821	0.08687	0.31419	0.601	P15	0.12821	0.08687	0.31419	0.601
P16	-0.1020599E-01	-0.57322	0.00487	4.390	P18	0.03605	0.02262	0.26942	0.040	P18	0.03605	0.02262	0.26942	0.040	P18	0.03605	0.02262	0.26942	0.040
P6	-0.1480757	-0.29961	0.06815	4.722	P19	-0.10792	-0.07243	0.30824	0.417	P19	-0.10792	-0.07243	0.30824	0.417	P19	-0.10792	-0.07243	0.30824	0.417
P17	0.5161205E-02	0.65731	0.00221	5.449	P21	0.02817	0.02964	0.75724	0.069	P21	0.02817	0.02964	0.75724	0.069	P21	0.02817	0.02964	0.75724	0.069
P7	5.352909	0.19141	3.30131	2.629	P22	0.02680	0.02822	0.75384	0.063	P22	0.02680	0.02822	0.75384	0.063	P22	0.02680	0.02822	0.75384	0.063
P1	-0.2381341E-03	-0.20411	0.00020	1.408	P23	0.02954	0.03101	0.75653	0.076	P23	0.02954	0.03101	0.75653	0.076	P23	0.02954	0.03101	0.75653	0.076
(CONSTANT)	29.02188																		
					P24	0.02822	0.02967	0.74820	0.070	P24	0.02822	0.02967	0.74820	0.070	P24	0.02822	0.02967	0.74820	0.070
					R1	-0.04373	-0.04573	0.82093	0.166	R1	-0.04373	-0.04573	0.82093	0.166	R1	-0.04373	-0.04573	0.82093	0.166
					R2	0.00513	0.00561	0.91562	0.002	R2	0.00513	0.00561	0.91562	0.002	R2	0.00513	0.00561	0.91562	0.002
					R3	0.04577	0.05294	0.90821	0.222	R3	0.04577	0.05294	0.90821	0.222	R3	0.04577	0.05294	0.90821	0.222
					R4	-0.05742	-0.06615	0.86350	0.347	R4	-0.05742	-0.06615	0.86350	0.347	R4	-0.05742	-0.06615	0.86350	0.347
					R5	0.08654	0.09721	0.88733	0.754	R5	0.08654	0.09721	0.88733	0.754	R5	0.08654	0.09721	0.88733	0.754
					R6	-0.03648	-0.04154	0.81214	0.137	R6	-0.03648	-0.04154	0.81214	0.137	R6	-0.03648	-0.04154	0.81214	0.137
					R7	0.02444	0.02662	0.81214	0.056	R7	0.02444	0.02662	0.81214	0.056	R7	0.02444	0.02662	0.81214	0.056

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C165
VARIABLE LIST 1
REGRESSION LIST 5

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.28116	0.07905	0.07905	-0.28116	-0.2096363E-01	-1.37897
JUR	0.35341	0.12490	0.04585	-0.04787	-0.9002441	-0.17076
P5	0.38176	0.14574	0.02084	-0.16271	-0.4961897E-01	-0.11121
P3	0.40511	0.16412	0.01838	0.19039	5.087871	0.34032
P14	0.42291	0.17885	0.01473	-0.00030	0.1745270E-01	0.29599
P9	0.44575	0.19869	0.01984	-0.22617	17.89773	0.47125
P2	0.46529	0.21650	0.01781	-0.08809	-4.241478	-0.56898
P16	0.49045	0.24054	0.02405	-0.17256	-0.8423116E-02	-0.47308
P6	0.50486	0.25489	0.01434	-0.00030	-0.1377746	-0.27877
P17	0.52997	0.28087	0.02598	-0.16368	0.2998431E-02	0.38187
P7	0.55098	0.30357	0.02270	0.12954	5.401693	0.19315
P1	0.56180	0.31562	0.01205	0.04547	-0.1903693E-03	-0.16317
R5	0.56753	0.32209	0.00647	0.02067	0.7964239	0.09540
P12	0.57402	0.32950	0.00741	-0.16125	-0.8987259E-03	-0.06269
P11	0.57617	0.33197	0.00247	-0.13276	0.2820503E-02	0.18277
P13	0.57991	0.33629	0.00432	-0.02774	0.8399644E-04	0.13776
P4	0.58294	0.33982	0.00353	-0.18557	0.4062646E-04	0.10856
P15	0.58571	0.34306	0.00324	-0.08147	0.1976184E-02	0.05651
P19	0.58815	0.34591	0.00285	0.02073	-0.5931942E-02	-0.28175
R3	0.59117	0.34948	0.00357	0.08018	0.4624687	0.07504
P23	0.59352	0.35226	0.00278	-0.05349	0.1942519E-02	1.94678
P22	0.59582	0.35501	0.00275	-0.05139	-0.3653897E-02	-3.65152
P21	0.59888	0.35865	0.00364	-0.05037	0.9651638E-03	1.74617
P10	0.59958	0.35950	0.00084	-0.19910	0.2216319E-02	0.28569
R4	0.59990	0.35988	0.00038	-0.04905	-0.1432404	-0.02088
R7	0.60015	0.36018	0.00030	-0.06439	0.7193129	0.04482
P8	0.60031	0.36037	0.00019	0.05513	4.078119	0.09253
(CONSTANT)					27.02826	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS. JUR=0=PUBLIC-=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C166
VARIABLE LIST 1
REGRESSION LIST 6

VARIABLE(S) ENTERED ON STEP NUMBER 10.. P6

MULTIPLE R	R SQUARE	ADJUSTED R SQUARE	STANDARD ERROR	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
0.51185	0.26199	0.17199	2.32500	REGRESSION	RESIDUAL	10.	157.35576	15.73558	2.91095	0.0036
						82.	443.26252	5.40564		

----- VARIABLES IN THE EQUATION -----
----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.9549888E-02	-0.61604	0.00319	8.949	P1	-0.12882	-0.08259	0.30333	0.556
JUR	-0.9895105	-0.18406	0.79142	1.563	P4	0.14053	0.07882	0.23218	0.506
P3	4.655052	0.30535	1.95864	5.649	P5	0.02878	0.03152	0.88564	0.081
P14	0.1491904E-01	0.24813	0.00777	3.691	P7	0.06455	0.05825	0.60091	0.276
P8	-11.22875	-0.24984	7.01005	2.566	P9	0.35701	0.07803	0.03526	0.496
P13	0.6379023E-04	0.10260	0.00007	0.910	P10	-0.37912	-0.07390	0.02804	0.445
P2	-2.636708	-0.34687	1.33821	3.882	P11	0.05158	0.03876	0.41679	0.122
P16	-0.8067440E-02	-0.44435	0.00411	3.849	P12	-0.08596	-0.08265	0.68229	0.557
P17	0.3426931E-02	0.42800	0.00203	2.847	P15	-0.05111	-0.03572	0.36048	0.103
P6	-0.1065179	-0.21136	0.07276	2.143	P18	0.04976	0.03884	0.44952	0.122
(CONSTANT)	34.72254				P19	-0.08897	-0.01763	0.02897	0.025

P21	0.05239	0.05317	0.76010	0.230
P22	0.05180	0.05256	0.75961	0.224
P23	0.05385	0.05420	0.74752	0.239
P24	0.05271	0.05336	0.75641	0.231
R1	-0.05435	-0.05555	0.77088	0.251
R2	0.03703	0.03819	0.78494	0.118
R3	0.02942	0.03283	0.91901	0.087
R4	-0.01216	-0.01352	0.91235	0.015
R5	-0.02254	-0.02472	0.88781	0.050
R6	-0.00706	-0.00778	0.89625	0.005
R7	0.05811	0.06062	0.80302	0.299

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C167
VARIABLE(S) ENTERED ON STEP NUMBER 11.. P8
VARIABLE LIST 1
REGRESSION LIST 7

MULTIPLE R	0.55588	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.30901	REGRESSION	11.	5334.60117	484.96374	3.29296	0.0009
ADJUSTED R SQUARE	0.21517	RESIDUAL	81.	11929.08950	147.27271		
STANDARD ERROR	12.13560						

----- VARIABLES IN THE EQUATION -----					----- VARIABLES NOT IN THE EQUATION -----				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P20	-0.5712251E-01	-0.68730	0.01666	11.755	P1	-0.14403	-0.09315	0.28905	0.70
JUR	-4.725228	-0.16395	4.03794	1.369	P4	0.09545	0.05370	0.21871	0.23
P14	0.6208990E-01	0.19261	0.03970	2.447	P5	-0.03979	-0.04400	0.84484	0.15
R6	-3.850865	-0.10888	3.49905	1.211	P7	0.04282	0.03990	0.59995	0.12
R1	-4.126059	-0.11666	3.70540	1.240	P9	0.09437	0.02126	0.03506	0.03
P3	21.23969	0.25987	10.20810	4.329	P10	-0.29231	-0.05855	0.02772	0.27
P2	-16.44377	-0.40349	7.13119	5.317	P11	0.03221	0.02601	0.45052	0.05
P16	-0.5602612E-01	-0.57558	0.02148	6.804	P12	-0.00768	-0.00760	0.67686	0.00
P17	0.2630940E-01	0.61289	0.01046	6.326	P13	-0.00071	-0.00073	0.74910	0.00
P6	-0.6700858	-0.24801	0.38004	3.109	P15	-0.05046	-0.03588	0.34933	0.10
P8	-43.62823	-0.18106	35.94741	1.473	P18	0.05437	0.04390	0.45055	0.15
(CONSTANT)	203.6744				P19	-0.00820	-0.00166	0.02837	0.00

P19	-0.00820	-0.00166	0.02837	0.000
P21	-0.00553	-0.00580	0.75927	0.003
P22	-0.00428	-0.00449	0.75933	0.002
P23	-0.00223	-0.00232	0.75037	0.000
P24	-0.00435	-0.00455	0.75664	0.002
R2	0.00546	0.00565	0.73972	0.003
R3	0.02893	0.03041	0.76365	0.074
R4	-0.02894	-0.03131	0.80920	0.079
R5	-0.00597	-0.00662	0.84900	0.004
R7	-0.00393	-0.00425	0.81025	0.001

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DEPENDENT VARIABLE.. C167

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VARIABLE LIST 1

REGRESSION LIST 7

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P20	0.30853	0.09519	0.09519	-0.30853	-0.6059604E-01	-0.72910
JUR	0.38077	0.14499	0.04980	-0.04225	-5.426018	-0.18826
P14	0.40372	0.16299	0.01800	-0.01405	0.5791872E-01	0.17967
R6	0.42427	0.18001	0.01702	-0.15520	-3.183672	-0.09001
R1	0.44073	0.19424	0.01424	-0.01439	-1.944744	-0.05498
P3	0.45311	0.20531	0.01107	0.17016	23.68408	0.28978
P2	0.46839	0.21938	0.01407	-0.10109	-22.42440	-0.55024
P16	0.49660	0.24662	0.02723	-0.16068	-0.5201949E-01	-0.53442
P17	0.50922	0.25930	0.01269	-0.14538	0.2854129E-01	0.66489
P6	0.54446	0.29644	0.03714	0.00555	-0.7207114	-0.26674
P8	0.55588	0.30901	0.01257	0.07096	-93.89686	-0.38968
P1	0.56125	0.31500	0.00600	0.06375	-0.1253738E-02	-0.19656
P10	0.56331	0.31731	0.00231	-0.18255	-0.7907437E-02	-0.18645
P18	0.56504	0.31927	0.00196	-0.13427	0.2343206E-02	0.04114
P11	0.56585	0.32018	0.00091	-0.12786	0.5893452E-02	0.06986
P4	0.56724	0.32176	0.00158	-0.23191	0.1682314E-03	0.08223
R3	0.56794	0.32256	0.00080	0.06645	1.116634	0.03314
P19	0.56840	0.32307	0.00052	0.05175	0.2916716E-01	0.25341
P15	0.56918	0.32397	0.00090	-0.11309	-0.1479987E-01	-0.07741
P13	0.56949	0.32432	0.00035	-0.04787	0.9711182E-04	0.02913
R5	0.56985	0.32473	0.00041	-0.03549	1.170586	0.02565
P5	0.57015	0.32507	0.00034	-0.12589	-0.5869659E-01	-0.02406
P12	0.57029	0.32523	0.00016	-0.13565	-0.1336373E-02	-0.01705
(CONSTANT)					213.4270	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C168
VARIABLE(S) ENTERED ON STEP NUMBER 8.. P11
MULTIPLE R 0.57556
R SQUARE 0.33127
ADJUSTED R SQUARE 0.26758
STANDARD ERROR 7.99350

ANALYSIS OF VARIANCE
REGRESSION 8.
RESIDUAL 84.
SUM OF SQUARES 2658.82144
MEAN SQUARE 332.35268
F 5.20145
P 0.0000

VARIABLES IN THE EQUATION				VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL TOLERANCE	F	
P8	-64.03651	-0.38976	18.21336	12.362	P2	-0.09399	-0.05010	0.19001	0.20
P16	-0.4130203E-01	-0.62231	0.01308	9.968	P3	0.06530	0.06921	0.75126	0.39
JUR	-6.013553	-0.30600	2.42653	6.142	P4	0.06909	0.04988	0.34861	0.20
R2	6.754622	0.25841	2.49076	7.354	P5	-0.03117	-0.03646	0.91494	0.11
P1	-0.6380246E-03	-0.14670	0.00053	1.449	P6	0.06194	0.06465	0.72855	0.34
P13	-0.3853129E-03	-0.16953	0.00024	2.637	P7	0.02508	0.02309	0.56651	0.04
P10	0.1142237E-01	0.39499	0.00616	3.436	P9	-0.07966	-0.05327	0.29906	0.23
P11	-0.9871889E-02	-0.17161	0.00715	1.907	P12	-0.02620	-0.02927	0.83468	0.07
(CONSTANT)	53.69745				P14	-0.13060	-0.11965	0.56128	1.20

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P2	-0.09399	-0.05010	0.19001	0.20
P3	0.06530	0.06921	0.75126	0.39
P4	0.06909	0.04988	0.34861	0.20
P5	-0.03117	-0.03646	0.91494	0.11
P6	0.06194	0.06465	0.72855	0.34
P7	0.02508	0.02309	0.56651	0.04
P9	-0.07966	-0.05327	0.29906	0.23
P12	-0.02620	-0.02927	0.83468	0.07
P14	-0.13060	-0.11965	0.56128	1.20
P15	0.07802	0.05606	0.34525	0.26
P17	0.04341	0.00993	0.03502	0.00
P18	-0.05883	-0.04938	0.47121	0.20
P19	0.17306	0.03792	0.03210	0.11
P20	-0.20057	-0.09975	0.16539	0.83
P21	-0.02214	-0.02539	0.87981	0.05
P22	-0.01845	-0.02120	0.88213	0.03
P23	-0.01743	-0.01994	0.87510	0.03
P24	-0.01997	-0.02290	0.87912	0.04
R1	0.03441	0.03581	0.72402	0.10
R3	-0.04191	-0.04900	0.91409	0.20
R4	0.04949	0.05885	0.94561	0.28
R5	-0.03607	-0.04151	0.88570	0.14
R6	0.02332	0.02685	0.88643	0.06
R7	-0.06770	-0.07957	0.92370	0.52

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DEPENDENT VARIABLE.. C168

M U L T I P L E

REGRESSION

VARIABLE LIST 1

REGRESSION LIST 8

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.29722	0.08834	0.08834	-0.29722	-11.75233	-0.07153
P16	0.40173	0.16139	0.07305	-0.16827	-0.2761336E-01	-0.41606
JUR	0.47779	0.22828	0.06689	-0.21541	-0.8257254	-0.04202
R2	0.51716	0.26745	0.03917	0.17528	4.463256	0.17075
P1	0.54352	0.29541	0.02796	-0.10295	-0.1300860E-02	-0.29911
P13	0.55091	0.30351	0.00810	-0.15917	-0.3639516E-03	-0.16013
P10	0.56222	0.31609	0.01259	-0.11633	0.4726592E-01	1.63449
P11	0.57556	0.33127	0.01518	-0.01960	-0.7408589E-02	-0.12879
P14	0.58382	0.34085	0.00957	-0.24420	-0.3559078E-01	-0.16193
R7	0.59047	0.34866	0.00781	0.01587	-26.09353	-0.43621
P23	0.59856	0.35828	0.00962	0.11614	0.4422277E-02	1.18895
P21	0.60297	0.36358	0.00530	0.10235	-0.1735925E-02	-0.84253
P20	0.60789	0.36953	0.00595	0.02367	-0.1125759	-1.98655
P9	0.62204	0.38694	0.01741	0.12370	163.7749	1.15682
P4	0.62837	0.39485	0.00791	0.09538	0.3478833E-03	0.24938
P3	0.63577	0.40420	0.00935	0.17289	9.070611	0.16276
P19	0.64022	0.40988	0.00567	-0.29086	-0.4172852E-01	-0.53170
R5	0.64494	0.41595	0.00608	-0.06074	-3.945769	-0.12679
R3	0.64821	0.42018	0.00423	-0.04240	-2.058766	-0.08961
P5	0.64985	0.42231	0.00213	0.04592	-0.1208745	-0.07268
P6	0.65117	0.42402	0.00171	-0.05354	-0.1261876	-0.06850
R4	0.65152	0.42448	0.00046	0.03855	-0.8819626	-0.03450
P17	0.65192	0.42500	0.00051	-0.12356	-0.5435107E-02	-0.18569
P18	0.65222	0.42539	0.00040	-0.07784	-0.3160720E-02	-0.08138
P7	0.65287	0.42624	0.00085	0.07471	6.215734	0.05962
P2	0.65314	0.42659	0.00035	0.07732	-1.322443	-0.04759
(CONSTANT)					1.274529	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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***** M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C169
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P17
VARIABLE LIST 1
REGRESSION LIST 9

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.57356	REGRESSION	7.	2712.46841	387.49549	5.95306	0.0000				
ADJUSTED R SQUARE	0.27371	RESIDUAL	85.	5532.80588	65.09183						
STANDARD ERROR	8.06795										

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
P8	-61.75479	-0.37085	22.82881	7.318	P1	-0.08483	-0.07452	0.51774	0.469		
P16	-0.4450385E-01	-0.66158	0.01100	16.362	P2	0.04585	0.03165	0.31970	0.084		
JUR	-7.619352	-0.38253	2.31028	10.877	P3	0.04954	0.05351	0.78271	0.241		
R2	5.474638	0.20664	2.43770	5.044	P5	0.00706	0.00762	0.78218	0.005		
P4	0.5620109E-03	0.39748	0.00025	4.919	P6	0.08607	0.08689	0.68391	0.639		
P9	-50.82473	-0.35419	26.55043	3.664	P7	0.11100	0.10583	0.60997	0.952		
P17	0.6274565E-02	0.21151	0.00524	1.433	P10	-0.40446	-0.09135	0.03423	0.707		
(CONSTANT)	53.93473				P11	0.01792	0.01488	0.46266	0.019		
					P12	-0.03937	-0.04307	0.80310	0.156		
					P13	-0.07164	-0.07604	0.75595	0.489		
					P14	0.01411	0.01370	0.63239	0.016		
					P15	-0.03314	-0.02466	0.37154	0.051		
					P18	-0.07524	-0.06297	0.46992	0.334		
					P19	-0.11047	-0.02399	0.03166	0.048		
					P20	-0.43021	-0.08627	0.02699	0.630		
					P21	0.01049	0.01142	0.79431	0.011		
					P22	0.01559	0.01695	0.79349	0.024		
					P23	0.01428	0.01542	0.78237	0.020		
					P24	0.01285	0.01394	0.79050	0.016		
					R1	0.09587	0.09765	0.69615	0.809		
					R3	0.00055	0.00064	0.89544	0.000		
					R4	-0.06666	-0.07888	0.93967	0.526		
					R5	-0.09321	-0.10618	0.87081	0.958		
					R6	0.06775	0.07954	0.92485	0.535		
					R7	-0.02313	-0.02603	0.85009	0.057		

* * * * * M U L T I P L E R E G R E S S I O N * * * * *

DEPENDENT VARIABLE.. C169

VARIABLE LIST 1
REGRESSION LIST 9

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.30741	0.09450	0.09450	-0.30741	-73.21432	-0.43966
P16	0.38040	0.14470	0.05020	-0.12114	-0.3099270E-01	-0.46072
JUR	0.48187	0.23220	0.08749	-0.26925	-5.850337	-0.29371
R2	0.51666	0.26694	0.03474	0.16546	3.855082	0.14551
P4	0.54433	0.29629	0.02935	0.16887	0.6759874E-03	0.47809
P9	0.56361	0.31766	0.02137	0.15584	41.95237	0.29236
P17	0.57356	0.32897	0.01132	-0.06753	0.1120814E-01	0.37781
R5	0.58012	0.33654	0.00757	-0.06307	-4.512465	-0.14306
P7	0.58661	0.34412	0.00758	0.14046	25.34630	0.23988
P18	0.60286	0.36344	0.01933	-0.03017	-0.1053861E-01	-0.26772
R4	0.60926	0.37120	0.00776	-0.04675	-3.908858	-0.15085
R3	0.61252	0.37518	0.00397	-0.01051	-2.479712	-0.10649
P20	0.61520	0.37847	0.00329	0.05733	-0.5105282E-01	-0.88884
P1	0.61920	0.38341	0.00495	-0.04325	-0.6920644E-03	-0.15700
R7	0.62148	0.38623	0.00282	0.05794	-17.01189	-0.28058
P23	0.62602	0.39190	0.00567	0.15790	0.3188116E-02	0.84567
P21	0.62860	0.39513	0.00324	0.14898	-0.1265432E-02	-0.60596
P6	0.63146	0.39874	0.00360	-0.06211	0.1222569	0.06547
P10	0.63233	0.39985	0.00111	-0.09734	0.9563227E-02	0.32628
P13	0.63305	0.40075	0.00090	-0.11472	-0.4708885E-04	-0.02044
P15	0.63345	0.40126	0.00051	-0.02295	-0.7991040E-02	-0.06048
P5	0.63370	0.40157	0.00031	0.01097	-0.3640027E-01	-0.02159
R6	0.63392	0.40186	0.00028	0.08329	-0.5978459	-0.02446
P2	0.63412	0.40210	0.00025	0.03732	-1.147565	-0.04074
P12	0.63422	0.40223	0.00013	-0.09422	-0.8099807E-03	-0.01495
(CONSTANT)					28.48361	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

***** MULTIPLE REGRESSION *****
DEPENDENT VARIABLE.. C170
VARIABLE(S) ENTERED ON STEP NUMBER 10.. P2
VARIABLE LIST 1
REGRESSION LIST 10

		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
MULTIPLE R		0.64080						
R SQUARE		0.41062		10.	4294.31979	429.43198	5.71304	0.0000
ADJUSTED R SQUARE		0.33875		82.	6163.68920	75.16694		
STANDARD ERROR		8.66989						

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P8	-66.63567	-0.35531	24.97784	7.117	P1	-0.04962	-0.03487	0.29101	0.099
P16	-0.2438480E-01	-0.32187	0.01841	1.754	P3	0.05551	0.06335	0.76768	0.326
JUR	-7.211137	-0.32146	2.90398	6.166	P5	0.01368	0.01558	0.76463	0.020
R2	7.402496	0.24810	2.67767	7.643	P6	-0.01578	-0.01688	0.67451	0.023
P4	0.5857354E-03	0.36783	0.00028	4.307	P7	0.05335	0.05374	0.59812	0.235
R6	2.437710	0.08855	2.50697	0.946	P10	0.39813	0.07637	0.02169	0.475
P20	-0.8107920E-01	-1.25341	0.03752	4.671	P11	-0.02111	-0.01869	0.46229	0.028
P17	0.1489843E-01	0.44592	0.00756	3.884	P12	0.01787	0.02067	0.78839	0.035
P9	117.8183	0.72905	73.95885	2.538	P13	-0.01271	-0.01433	0.74946	0.017
P2	6.792196	0.21413	5.50096	1.525	P14	0.06319	0.06350	0.59515	0.328
(CONSTANT)	29.69643				P15	0.08763	0.06949	0.37058	0.393

P18	-0.06750	-0.05969	0.46094	0.290
P19	-0.07931	-0.01719	0.02769	0.024
P21	-0.04489	-0.05169	0.78142	0.217
P22	-0.03748	-0.04314	0.78061	0.151
P23	-0.03474	-0.03972	0.77035	0.128
P24	-0.04038	-0.04639	0.77788	0.175
R1	0.06795	0.07115	0.64614	0.412
R3	-0.02941	-0.03438	0.80559	0.096
R4	0.06509	0.07896	0.86716	0.508
R5	-0.07306	-0.08632	0.82259	0.608
R7	-0.07621	-0.09080	0.83680	0.673

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C170
VARIABLE LIST 1
REGRESSION LIST 10

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.34529	0.11922	0.11922	-0.34529	-54.48996	-0.29055
P16	0.42639	0.18181	0.06259	-0.13463	-0.1874733E-01	-0.24746
JUR	0.53186	0.28287	0.10106	-0.29167	-4.131317	-0.18417
R2	0.56451	0.31867	0.03580	0.16516	7.033355	0.23572
P4	0.59685	0.35623	0.03756	0.19343	0.6781344E-03	0.42586
R6	0.60548	0.36661	0.01038	0.13312	2.047995	0.07440
P20	0.61314	0.37594	0.00933	0.08967	-0.1297116	-2.00522
P17	0.62420	0.38963	0.01369	-0.08407	0.9254628E-03	0.02770
P9	0.63219	0.39967	0.01004	0.22646	190.1164	1.17642
P2	0.64080	0.41062	0.01096	0.05473	5.016958	0.15817
R7	0.64458	0.41548	0.00486	0.03402	-23.06922	-0.33785
R5	0.64898	0.42117	0.00569	-0.08073	-4.368470	-0.12298
P15	0.65286	0.42623	0.00506	0.00992	0.2563816E-01	0.17230
P7	0.65647	0.43095	0.00472	0.13075	29.51181	0.24800
P18	0.66301	0.43958	0.00863	-0.01556	-0.9587809E-02	-0.21627
P10	0.66714	0.44508	0.00550	-0.10594	0.2832915E-01	0.85821
P12	0.67108	0.45035	0.00528	-0.04996	0.4771226E-02	0.07822
P23	0.67505	0.45570	0.00534	0.14492	0.4894854E-02	1.15289
P21	0.68267	0.46604	0.01034	0.13100	-0.2075566E-02	-0.88251
P3	0.68525	0.46956	0.00353	0.09324	9.498277	0.14931
P6	0.68940	0.47527	0.00571	-0.15393	-0.2425014	-0.11532
P14	0.69012	0.47627	0.00099	-0.20665	0.1387093E-01	0.05529
P11	0.69109	0.47761	0.00134	0.05350	0.4102259E-02	0.06247
R4	0.69142	0.47806	0.00045	0.03882	0.2606110	0.00893
P19	0.69165	0.47838	0.00032	-0.32424	-0.1435037E-01	-0.16019
P5	0.69179	0.47858	0.00020	0.07401	-0.4095600E-01	-0.02157
R3	0.69192	0.47875	0.00017	-0.04396	-0.6868476	-0.02619
P1	0.69209	0.47898	0.00023	-0.01432	-0.1750937E-03	-0.03527
P13	0.69216	0.47909	0.00011	-0.06261	0.3790415E-04	0.01461
(CONSTANT)					-23.10945	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC-=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C171 REGRESSION LIST 1

VARIABLE(S) ENTERED ON STEP NUMBER 6.. P9

MULTIPLE R	R SQUARE	ADJUSTED R SQUARE	STANDARD ERROR	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
				REGRESSION	RESIDUAL					
	0.61708	0.38078	21.98984	6.	86.		25572.81359	4262.13560	8.81420	0.0000
		0.33758					41585.57097	483.55315		

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL TOLERANCE	F	
P8	-146.6160	-0.30850	50.93543	8.286	P1	-0.12034	-0.11122	0.52889	1.065
P16	-0.1124106	-0.58552	0.02189	26.363	P2	0.10700	0.07829	0.33154	0.524
JUR	-22.65894	-0.39860	6.29654	12.950	P3	0.06874	0.07737	0.78434	0.512
R2	18.36412	0.24288	6.60610	7.728	P5	0.01807	0.02031	0.78243	0.039
P4	0.1595040E-02	0.39527	0.00068	5.580	P6	0.08838	0.09913	0.77896	0.844
P9	-89.00970	-0.21735	69.47849	1.641	P7	-0.00132	-0.00147	0.76398	0.000
(CONSTANT)	180.3233				P10	0.18010	0.10944	0.22865	1.030

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P 1	-0.12034	-0.11122	0.52889	1.065
P 2	0.10700	0.07829	0.33154	0.524
P 3	0.06874	0.07737	0.78434	0.512
P 5	0.01807	0.02031	0.78243	0.035
P 6	0.08838	0.09913	0.77896	0.844
P 7	-0.00132	-0.00147	0.76398	0.000
P 10	0.18010	0.10944	0.22865	1.030
P 11	0.04850	0.05223	0.71817	0.233
P 12	0.01254	0.01472	0.85392	0.018
P 13	-0.06407	-0.07115	0.76362	0.433
P 14	0.05528	0.05826	0.68756	0.289
P 15	0.11389	0.10874	0.56452	1.017
P 17	0.19590	0.12521	0.25296	1.354
P 18	-0.06669	-0.05830	0.47322	0.290
P 19	0.34082	0.11293	0.06799	1.098
P 20	-0.00285	-0.00079	0.04721	0.000
P 21	-0.02892	-0.03276	0.79437	0.091
P 22	-0.02463	-0.02788	0.79379	0.066
P 23	-0.02176	-0.02447	0.78265	0.051
P 24	-0.02598	-0.02936	0.79065	0.073
R 1	0.08131	0.08819	0.72850	0.666
R 3	-0.05201	-0.06410	0.94058	0.351
R 4	-0.00329	-0.00406	0.94039	0.001
R 5	-0.09107	-0.10810	0.87248	1.005
R 6	0.08379	0.10246	0.92594	0.902
R 7	-0.06118	-0.07168	0.85019	0.439

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

DEPENDENT VARIABLE.. C171
MULTIPLE REGRESSION
VARIABLE LIST 1
REGRESSION LIST 1

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
P8	0.34672	0.12021	0.12021	-0.34672	-143.1706	-0.30125
P16	0.43986	0.19347	0.07326	-0.15374	-0.7773922E-01	-0.40492
JUR	0.54306	0.29492	0.10145	-0.28391	-10.65973	-0.18752
R2	0.58167	0.33835	0.04343	0.18374	13.88375	0.18362
P4	0.60743	0.36897	0.03062	0.16848	0.1703832E-02	0.42223
P9	0.61708	0.38078	0.01182	0.18673	393.8752	0.96178
P17	0.62489	0.39049	0.00971	-0.09955	0.7318711E-02	0.08644
R5	0.63127	0.39850	0.00800	-0.07495	-14.39052	-0.15986
P20	0.63696	0.40572	0.00722	0.06366	-0.2919408	-1.78095
P1	0.64651	0.41797	0.01225	-0.05639	-0.2165309E-02	-0.17212
P3	0.65168	0.42469	0.00672	0.12766	19.26605	0.11951
P10	0.65508	0.42913	0.00444	-0.11613	0.8459960E-01	1.01136
P19	0.65980	0.43534	0.00621	-0.33257	-0.5325250E-01	-0.23457
R3	0.66339	0.44009	0.00475	-0.03568	-6.729108	-0.10126
R7	0.66759	0.44567	0.00558	0.03921	-67.80854	-0.39187
P23	0.67532	0.45606	0.01038	0.15266	0.1248237E-01	1.16016
P21	0.68152	0.46448	0.00842	0.13928	-0.5064557E-02	-0.84976
R4	0.68365	0.46738	0.00290	0.01226	-6.030270	-0.08154
P13	0.68527	0.46959	0.00222	-0.12259	-0.4098171E-03	-0.06233
P7	0.68696	0.47192	0.00232	0.12664	61.07599	0.20254
P18	0.69267	0.47979	0.00787	-0.04362	-0.2329483E-01	-0.20736
P5	0.69332	0.48069	0.00090	0.04893	-0.1933918	-0.04020
P6	0.69376	0.48130	0.00061	-0.10102	-0.2617419	-0.04912
P14	0.69413	0.48181	0.00051	-0.24031	-0.2385371E-01	-0.03752
P12	0.69443	0.48224	0.00043	-0.08954	0.4350334E-02	0.02814
P15	0.69468	0.48258	0.00035	-0.01149	0.1727543E-01	0.04581
R1	0.69488	0.48285	0.00027	-0.20401	-1.628520	-0.02334
P11	0.69497	0.48298	0.00013	0.03305	-0.3841531E-02	-0.02309
P2	0.69507	0.48312	0.00014	0.06140	2.442059	0.03038
(CONSTANT)					7.810647	

* * * * * M U L T I P L E R E G R E S S I O N * * * * *
DEPENDENT VARIABLE.. C172
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P22

VARIABLE LIST 1
REGRESSION LIST 2

MULTIPLE R		ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.76924	REGRESSION	7.					
ADJUSTED R SQUARE	0.55810	RESIDUAL	85.		114582.60550	16368.94364	17.59895	0.0000
STANDARD ERROR	30.49769				79059.29154	930.10931		

----- VARIABLES IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F
JUR	-50.23821	-0.52045	7.13448	49.584
P23	0.3718310E-01	2.03525	0.01706	4.753
P13	-0.2526673E-02	-0.22632	0.00082	9.435
P3	63.11246	0.23056	19.86525	10.094
P7	101.6767	0.19857	36.35058	7.824
P5	1.126467	0.13789	0.57555	3.831
P22	-0.3195030E-01	-1.74386	0.01712	3.481
(CONSTANT)	-50.61346			

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P1	0.09120	0.10538	0.54503	0.943
P2	0.05142	0.05440	0.45699	0.249
P4	0.06109	0.07675	0.64449	0.498
P6	0.04456	0.05801	0.69213	0.284
P8	-0.11804	-0.14841	0.64533	1.892
P9	0.05969	0.07335	0.61649	0.454
P10	0.10688	0.12357	0.54570	1.302
P11	0.04651	0.06351	0.76127	0.340
P12	-0.01287	-0.01737	0.74424	0.025
P14	-0.06135	-0.08208	0.73074	0.570
P15	0.13531	0.15137	0.51089	1.970
P16	-0.01765	-0.02060	0.55624	0.036
P17	0.11843	0.13724	0.54826	1.612
P18	0.11417	0.13433	0.56511	1.543
P19	-0.04709	-0.05815	0.62257	0.285
P20	0.05065	0.06411	0.65405	0.347
P21	0.62440	0.04527	0.00215	0.173
P24	1.31415	0.04530	0.00049	0.173
R1	-0.09911	-0.14463	0.86946	1.795
R2	-0.03649	-0.05278	0.85439	0.235
R3	0.05790	0.08833	0.94998	0.660
R4	0.02614	0.03951	0.93301	0.131
R5	-0.04374	-0.06677	0.95148	0.376
R6	0.07362	0.11171	0.94020	1.062
R7	-0.05404	-0.03490	0.17026	0.102

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

08/25/80

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C172 REGRESSION LIST 2

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.55981	0.31338	0.31338	-0.55981	-22.18527	-0.22983
P23	0.63579	0.40422	0.09084	0.38259	0.4224773E-01	2.31247
P13	0.68877	0.47441	0.07018	-0.37204	-0.3781360E-02	-0.33871
P3	0.71571	0.51225	0.03784	0.07646	66.63765	0.24344
P7	0.74219	0.55084	0.03860	0.25190	122.7351	0.23969
P5	0.75829	0.57500	0.02416	0.14749	0.6575245	0.08049
P22	0.76924	0.59172	0.01672	0.37301	-0.3595456E-01	-1.96241
P15	0.77529	0.60108	0.00935	0.15705	0.8470831E-01	0.13229
R1	0.78506	0.61631	0.01524	-0.24928	-22.66700	-0.19135
R5	0.79030	0.62458	0.00826	-0.03321	-25.23957	-0.16512
P1	0.79660	0.63458	0.01000	0.27730	0.5512508E-02	0.25805
P2	0.81293	0.66086	0.02628	-0.20559	38.16513	0.27962
P14	0.81505	0.66431	0.00345	-0.35114	-0.1870204	-0.17323
P17	0.81971	0.67192	0.00761	0.07037	0.4999898E-01	0.34778
P16	0.82550	0.68145	0.00953	0.11846	-0.9194503E-01	-0.28204
P11	0.83176	0.69182	0.01037	0.08457	-0.4345777E-01	-0.15380
P8	0.83555	0.69815	0.00633	-0.45309	24.12158	0.02989
R7	0.83670	0.70007	0.00192	0.26480	-42.30811	-0.14399
P20	0.83786	0.70201	0.00194	0.26443	-0.2865911	-1.02960
P10	0.83967	0.70505	0.00304	0.07489	0.1123565	0.79101
P9	0.84218	0.70927	0.00421	0.37713	418.5262	0.60186
R4	0.84303	0.71071	0.00144	0.02609	-5.951141	-0.04739
R2	0.84376	0.71192	0.00122	-0.08973	-7.796214	-0.06072
P6	0.84454	0.71324	0.00132	-0.06078	-0.5673619	-0.06270
P19	0.84483	0.71374	0.00050	-0.36772	-0.1186200	-0.30771
P18	0.84521	0.71437	0.00063	0.25922	0.1256573E-01	0.06587
P4	0.84539	0.71468	0.00031	0.27078	-0.3320132E-03	-0.04845
P12	0.84549	0.71485	0.00017	-0.13176	-0.4515947E-02	-0.01721
(CONSTANT)					-288.5855	

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DEPENDENT VARIABLE.. C173

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VARIABLE LIST 1

REGRESSION LIST 3

VARIABLE(S) ENTERED ON STEP NUMBER 9.. R2

MULTIPLE R	0.73163	ANALYSIS OF VARIANCE	DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.53528	REGRESSION	9.	225712.45645	25079.16183	10.62262	0.0000
ADJUSTED R SQUARE	0.48489	RESIDUAL	83.	195956.39226	2360.92039		
STANDARD ERROR	48.58930						

----- VARIABLES IN THE EQUATION -----

----- VARIABLES NOT IN THE EQUATION -----

VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-73.60698	-0.51675	13.73410	28.724	P1	0.04010	0.04173	0.50337	0.143
P23	0.7835768E-01	2.90648	0.02787	7.906	P2	0.05942	0.05156	0.35001	0.219
P22	-0.7149420E-01	-2.64437	0.02786	6.586	P4	-0.01074	-0.01022	0.42061	0.009
P16	-0.1342298	-0.27903	0.05802	5.352	P6	0.01948	0.02142	0.56174	0.038
P8	-161.7584	-0.13583	103.17602	2.458	P7	0.04517	0.05288	0.63692	0.230
P5	1.632859	0.13545	0.92954	3.086	P9	-0.03414	-0.03169	0.40044	0.082
P18	0.5288340E-01	0.18786	0.03113	2.886	P10	0.07870	0.06634	0.33021	0.362
P3	65.22763	0.16148	35.25807	3.423	P11	0.01911	0.02554	0.82989	0.054
R2	-20.09182	-0.10605	14.84013	1.833	P12	-0.04032	-0.05117	0.74859	0.215
(CONSTANT)	-2.948053				P13	-0.08503	-0.10942	0.76946	0.994

P1	0.04010	0.04173	0.50337	0.143
P2	0.05942	0.05156	0.35001	0.219
P4	-0.01074	-0.01022	0.42061	0.009
P6	0.01948	0.02142	0.56174	0.038
P7	0.04517	0.05288	0.63692	0.230
P9	-0.03414	-0.03169	0.40044	0.082
P10	0.07870	0.06634	0.33021	0.362
P11	0.01911	0.02554	0.82989	0.054
P12	-0.04032	-0.05117	0.74859	0.215
P13	-0.08503	-0.10942	0.76946	0.994
P14	-0.06793	-0.08230	0.68203	0.559
P15	0.03151	0.03514	0.57812	0.101
P17	0.07601	0.06492	0.33896	0.347
P19	0.16649	0.06307	0.06670	0.328
P20	-0.01915	-0.01709	0.37030	0.024
P21	1.03603	0.07005	0.00212	0.404
P24	2.17917	0.07006	0.00048	0.404
R1	-0.06178	-0.07933	0.76633	0.519
R3	0.07928	0.10963	0.88860	0.998
R4	0.06456	0.08963	0.89573	0.664
R5	-0.05940	-0.08247	0.89586	0.562
R6	-0.03874	-0.05348	0.88567	0.235
R7	-0.08782	-0.05234	0.16511	0.225

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C173 REGRESSION LIST 3

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.49435	0.24438	0.24438	-0.49435	-46.31416	-0.32514
P23	0.59698	0.35639	0.11201	0.40558	0.1059974	3.93171
P22	0.64808	0.42001	0.06362	0.38803	-0.1353135	-5.00486
P16	0.67335	0.45340	0.03339	0.03062	-0.1685867	-0.35045
P8	0.69560	0.48387	0.03047	-0.37469	11.77673	0.00989
P5	0.70658	0.49926	0.01539	0.21800	1.392700	0.11553
P18	0.71491	0.51109	0.01184	0.21147	0.2414994E-01	0.08579
P3	0.72458	0.52502	0.01393	0.00679	68.20170	0.16884
R2	0.73163	0.53528	0.01026	-0.13570	10.20078	0.05384
R3	0.73544	0.54087	0.00559	0.09055	33.12912	0.19895
R4	0.74017	0.54786	0.00699	0.08717	31.55101	0.17026
P13	0.74454	0.55434	0.00648	-0.23854	-0.2816907E-02	-0.17099
P17	0.74945	0.56167	0.00733	0.05217	0.5480921E-01	0.25835
P14	0.75577	0.57119	0.00951	-0.32823	-0.2654721	-0.16664
P11	0.75842	0.57520	0.00402	0.10211	-0.4286732E-01	-0.10281
P2	0.76077	0.57877	0.00357	-0.08589	53.97517	0.26798
P1	0.76628	0.58718	0.00841	0.14541	0.7056322E-02	0.22385
P7	0.76880	0.59106	0.00388	0.17238	125.9906	0.16674
P21	0.77210	0.59614	0.00508	0.38006	0.2092321E-01	1.40103
R6	0.77421	0.59940	0.00326	0.08241	18.93015	0.10829
P15	0.77574	0.60177	0.00237	0.16983	0.8864499E-01	0.09382
P6	0.77724	0.60410	0.00234	-0.11017	-1.355116	-0.10148
P10	0.77794	0.60520	0.00109	0.06826	0.1060904	0.50615
P20	0.77921	0.60717	0.00197	0.27671	-0.1875565	-0.45662
P9	0.77955	0.60770	0.00053	0.39109	281.6938	0.27451
R1	0.77979	0.60807	0.00037	-0.22539	4.289476	0.02454
P12	0.77998	0.60837	0.00030	-0.07091	-0.1074271E-01	-0.02774
P4	0.78016	0.60865	0.00027	0.27940	-0.5154254E-03	-0.05097
R7	0.78036	0.60896	0.00032	0.29018	-21.90565	-0.05052
P19	0.78058	0.60931	0.00035	-0.30422	-0.9728601E-01	-0.17102
(CONSTANT)					-318.0643	

ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL

FILE NONAME (CREATION DATE = 08/25/80)

VARIABLE LIST 1

REGRESSION LIST 4

DEPENDENT VARIABLE.. C174

VARIABLE(S) ENTERED ON STEP NUMBER 6.. P21

MULTIPLE R		ANALYSIS OF VARIANCE		SUM OF SQUARES		MEAN SQUARE		F		P	
R SQUARE	0.71184	REGRESSION	6.	202706.31038	33784.38506	14.72344	0.0000				
ADJUSTED R SQUARE	0.47230	RESIDUAL	86.	197335.47433	2294.59854						
STANDARD ERROR	47.90197										

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-67.63461	-0.48749	13.49405	25.122	P1	0.13136	0.11956	0.40864	1.23
P23	0.1107118	4.21612	0.03377	10.751	P2	0.06541	0.05287	0.32229	0.23
P22	-0.1634753	-6.20777	0.06912	5.594	P3	0.10223	0.12953	0.79194	1.45
P16	-0.1154267	-0.24634	0.04425	6.804	P4	-0.01073	-0.01016	0.44200	0.00
P8	-256.3345	-0.22099	98.75934	6.737	P5	0.09958	0.13721	0.93657	1.63
P21	0.3366800E-01	2.31457	0.02343	2.065	P6	0.07254	0.08802	0.72632	0.66
(CONSTANT)	145.5944				P7	0.09386	0.11777	0.77664	1.19

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P10	0.03664	0.03419	0.42966	0.100
P9	0.08298	0.06599	0.31195	0.372
P11	-0.01393	-0.01849	0.86941	0.029
P12	-0.05934	-0.07817	0.85596	0.523
P13	-0.02596	-0.03471	0.88186	0.103
P14	-0.07396	-0.08736	0.68829	0.654
P15	0.02069	0.02111	0.51348	0.038
P17	0.03998	0.03239	0.32367	0.089
P18	0.12775	0.12440	0.46774	1.336
P19	0.23967	0.08989	0.06938	0.692
P20	0.02295	0.01990	0.37069	0.034
P24	999999.99999	99999.99999	-0.00000	99999.999
R1	-0.00802	-0.01046	0.83890	0.009
R2	-0.07233	-0.10017	0.94617	0.862
R3	0.05992	0.08357	0.95943	0.598
R4	0.04576	0.06398	0.96426	0.349
R5	-0.04821	-0.06599	0.92420	0.372
R6	0.00378	0.00517	0.92319	0.002
R7	-0.01669	-0.00943	0.15742	0.008

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC=-1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C174 REGRESSION LIST 4

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.46533	0.21653	0.21653	-0.46533	-47.19634	-0.34018
P23	0.60150	0.36180	0.14527	0.44713	0.1001057	3.81222
P22	0.65021	0.42277	0.06097	0.42958	-0.1411348	-5.35942
P16	0.67891	0.46092	0.03815	-0.00290	-0.1216898	-0.25971
P8	0.70347	0.49487	0.03395	-0.37236	277.1070	0.23890
P21	0.71184	0.50671	0.01185	0.42274	0.2732889E-01	1.87878
P5	0.71833	0.51600	0.00929	0.20536	1.027006	0.08746
P18	0.72436	0.52470	0.00870	0.18375	0.3095545E-01	0.11290
P3	0.73227	0.53622	0.01151	0.01531	69.32988	0.17621
R2	0.73901	0.54614	0.00992	-0.15065	1.403243	0.00760
R4	0.74255	0.55138	0.00524	0.09662	29.52582	0.16358
R3	0.74427	0.55393	0.00256	0.04718	22.55191	0.13904
P1	0.74599	0.55651	0.00258	0.10868	0.5760725E-02	0.18762
P2	0.75245	0.56618	0.00967	-0.04441	59.51796	0.30338
P14	0.75476	0.56966	0.00348	-0.32616	-0.1978933	-0.12753
P13	0.75686	0.57283	0.00317	-0.21272	-0.1705304E-02	-0.10627
P10	0.75941	0.57671	0.00388	0.04207	0.1857112	0.90964
P7	0.76307	0.58227	0.00556	0.16036	88.81167	0.12067
P20	0.76540	0.58584	0.00356	0.26547	-0.4025854	-1.00627
R6	0.76722	0.58862	0.00279	0.09472	17.69173	0.10391
P9	0.76869	0.59088	0.00226	0.38865	600.6496	0.60095
P19	0.77063	0.59387	0.00299	-0.31319	-0.2857656	-0.51576
P11	0.77222	0.59632	0.00245	0.08746	-0.2999143E-01	-0.07385
P6	0.77301	0.59755	0.00123	-0.11213	-0.8842312	-0.06798
P15	0.77349	0.59828	0.00073	0.15693	0.5677555E-01	0.06169
R1	0.77376	0.59871	0.00043	-0.21362	6.271636	0.03684
(CONSTANT)					-367.7350	

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

* * * * * M U L T I P L E R E G R E S S I O N * * * * * VARIABLE LIST 1
DEPENDENT VARIABLE.. C175 REGRESSION LIST 5

VARIABLE(S) ENTERED ON STEP NUMBER 9.. P13

MULTIPLE R	0.75191	ANALYSIS OF VARIANCE		DF	SUM OF SQUARES	MEAN SQUARE	F	P
R SQUARE	0.56537	REGRESSION		9.	1603138.57153	178126.50795	11.99658	0.0000
ADJUSTED R SQUARE	0.51825	RESIDUAL		83.	1232393.24465	14848.11138		
STANDARD ERROR	121.85283							

VARIABLES IN THE EQUATION						VARIABLES NOT IN THE EQUATION					
VARIABLE	B	BETA	STD ERROR B	F		VARIABLE	BETA IN	PARTIAL	TOLERANCE	F	
JUR	-180.1913	-0.48783	34.83527	26.757	P1		0.04734	0.05071	0.49865	0.211	
P23	0.1764359	2.52372	0.07117	6.146	P2		0.06905	0.06163	0.34626	0.313	
P22	-0.1566734	-2.23467	0.07120	4.842	P4		0.03268	0.03159	0.40617	0.082	
P16	-0.3426709	-0.27469	0.14547	5.549	P6		0.04571	0.05238	0.57083	0.226	
P8	-419.4097	-0.13581	268.05025	2.448	P7		0.03801	0.04502	0.60985	0.167	
P3	175.3194	0.16737	86.09819	4.146	P9		-0.00082	-0.00077	0.39104	0.000	
P18	0.1581995	0.21672	0.07965	3.945	P10		0.10737	0.09116	0.31328	0.687	
P5	4.346807	0.13905	2.36937	3.366	P11		-0.00916	-0.01273	0.83999	0.013	
P13	-0.5585595E-02	-0.13075	0.00341	2.688	P12		-0.02450	-0.03205	0.74346	0.084	
(CONSTANT)	-34.82658				P14		-0.06824	-0.08572	0.68591	0.607	

P15	0.08825	0.10050	0.56369	0.337							
P17	0.10260	0.08824	0.32147	0.643							
P19	0.23810	0.09298	0.06627	0.715							
P20	0.00508	0.00458	0.35205	0.002							
P21	1.17998	0.08353	0.00218	0.576							
P24	2.48230	0.08355	0.00049	0.576							
R1	-0.05257	-0.07068	0.78565	0.412							
R2	-0.08125	-0.11382	0.85290	1.076							
R3	0.07292	0.10775	0.94898	0.963							
R4	0.07491	0.10824	0.90734	0.972							
R5	-0.04181	-0.06046	0.90911	0.301							
R6	0.00278	0.00402	0.91152	0.001							
R7	-0.07790	-0.04805	0.16535	0.190							

ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL

FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C175

VARIABLE LIST 1

REGRESSION LIST 5

SUMMARY TABLE									
VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B				
JUR	0.51171	0.26184	0.26184	-0.51171	-116.8697	-0.31640			
P23	0.62051	0.38503	0.12319	0.42433	0.2534246	3.62496			
P22	0.66220	0.43851	0.05348	0.40847	-0.3212986	-4.58277			
P16	0.68623	0.47090	0.03240	0.04167	-0.3771553	-0.30233			
P8	0.71392	0.50968	0.03877	-0.40276	302.4435	0.09794			
P3	0.72454	0.52495	0.01528	0.02835	204.1435	0.19489			
P18	0.73380	0.53846	0.01350	0.21831	0.6612873E-01	0.09059			
P5	0.74250	0.55130	0.01284	0.19975	3.005374	0.09614			
P13	0.75191	0.56537	0.01407	-0.26439	-0.7933227E-02	-0.18570			
R2	0.75565	0.57101	0.00563	-0.13237	-53.27183	-0.10843			
R1	0.75849	0.57530	0.00429	-0.23230	-67.37715	-0.14864			
P15	0.76112	0.57931	0.00401	0.16548	0.2179612	0.08896			
R5	0.76460	0.58462	0.00531	-0.03031	-80.34062	-0.13735			
P14	0.76868	0.59087	0.00625	-0.34084	-0.6431046	-0.15567			
P17	0.77190	0.59583	0.00496	0.04717	0.1064924	0.19357			
P7	0.77627	0.60259	0.00676	0.19253	338.0632	0.17253			
P1	0.77908	0.60696	0.00437	0.16936	0.1833150E-01	0.22425			
P2	0.78563	0.61722	0.01026	-0.10353	151.5523	0.29016			
P11	0.78958	0.62343	0.00622	0.09433	-0.1136399	-0.10510			
P21	0.79180	0.62695	0.00352	0.40072	0.5043642E-01	1.30236			
P10	0.79310	0.62901	0.00206	0.06170	0.4032674	0.74193			
P20	0.79458	0.63136	0.00235	0.27552	-0.8788661	-0.82511			
P6	0.79575	0.63321	0.00185	-0.10048	-2.813072	-0.08124			
P9	0.79709	0.63536	0.00215	0.39535	1307.855	0.49149			
R6	0.79793	0.63668	0.00133	0.10086	-19.31369	-0.04261			
R7	0.79876	0.63801	0.00133	0.30695	-119.9749	-0.10671			
P19	0.79955	0.63928	0.00127	-0.33105	-0.5011362	-0.33972			
P4	0.79967	0.63947	0.00019	0.28390	-0.1010734E-02	-0.03855			
P12	0.79979	0.63966	0.00019	-0.08018	-0.1831882E-01	-0.01824			
(CONSTANT)									
					-912.3016				

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=0=PUBLIC--=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
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DEPENDENT VARIABLE.. C176
VARIABLE(S) ENTERED ON STEP NUMBER 7.. P18
VARIABLE LIST 1
REGRESSION LIST 6

MULTIPLE R 0.74274 ANALYSIS OF VARIANCE DF
R SQUARE 0.55167 REGRESSION 7.
ADJUSTED R SQUARE 0.51475 RESIDUAL 85.
STANDARD ERROR 133.06456 SUM OF SQUARES MEAN SQUARE F P
1851908.93785 264558.41969 14.94159 0.0000
1505025.12998 17706.17800

VARIABLES IN THE EQUATION					VARIABLES NOT IN THE EQUATION				
VARIABLE	B	BETA	STD ERROR B	F	VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
JUR	-222.7439	-0.55422	37.46156	35.354	P1	0.05170	0.05498	0.50692	0.255
P23	0.2140882	2.81445	0.07584	7.970	P2	0.04203	0.03717	0.35069	0.116
P16	-0.4684166	-0.34510	0.15783	8.809	P4	-0.01587	-0.01571	0.43949	0.021
P8	-725.7072	-0.21598	279.14546	6.759	P5	0.08745	0.12676	0.94182	1.372
P22	-0.1952689	-2.55975	0.07584	6.630	P6	0.04036	0.04555	0.57123	0.175
P3	189.9755	0.16669	93.85975	4.097	P7	0.05172	0.06194	0.64300	0.323
P18	0.1220777	0.15370	0.08508	2.059	P9	-0.02657	-0.02612	0.43317	0.057
(CONSTANT)	545.6427				P10	0.08698	0.07521	0.33514	0.478

VARIABLE	BETA IN	PARTIAL	TOLERANCE	F
P11	0.01569	0.02164	0.85227	0.039
P12	-0.04281	-0.05580	0.76178	0.262
P13	-0.09837	-0.13550	0.85064	1.571
P14	-0.05192	-0.06498	0.70234	0.356
P15	0.05476	0.06364	0.60557	0.342
P17	0.08445	0.07347	0.33932	0.456
P19	0.25850	0.10125	0.06878	0.870
P20	-0.03290	-0.03056	0.38673	0.078
P21	0.93709	0.06565	0.00220	0.364
P24	1.97106	0.06565	0.00050	0.364
R1	-0.01670	-0.02281	0.83592	0.044
R2	-0.06187	-0.08828	0.91266	0.660
R3	0.06093	0.08902	0.95707	0.671
R4	0.05338	0.07634	0.91705	0.492
R5	-0.06472	-0.09300	0.92572	0.733
R6	0.01291	0.01861	0.93146	0.029
R7	-0.10747	-0.06529	0.16544	0.360

(PAIRWISE DELETION) R1 TO R7=7 REGIONS, JUR=O=PUBLIC-=1=SEP
ALL SUBJECTS COMBINED FOR EACH GRADE LEVEL
FILE NONAME (CREATION DATE = 08/25/80)

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DEPENDENT VARIABLE.. C176
M U L T I P L E R E G R E S S I O N
VARIABLE LIST 1
REGRESSION LIST 6

SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
JUR	0.51348	0.26366	0.26366	-0.51348	-130.5572	-0.32485
P23	0.61072	0.37298	0.10932	0.40448	0.2202677	2.89568
P16	0.66355	0.44030	0.06732	0.00503	-0.5146254	-0.37914
P8	0.70077	0.49108	0.05078	-0.41411	180.1676	0.05362
P22	0.72314	0.52293	0.03186	0.38941	-0.2210056	-2.89713
P3	0.73540	0.54081	0.01787	0.05627	251.9282	0.22104
P18	0.74274	0.55167	0.01086	0.18484	0.5982629E-01	0.07532
P13	0.74826	0.55990	0.00823	-0.26701	-0.8912764E-02	-0.19174
P5	0.75529	0.57047	0.01057	0.18147	2.977626	0.08754
P17	0.75880	0.57578	0.00532	0.01884	0.1363485	0.22778
P7	0.76483	0.58497	0.00918	0.19697	386.3331	0.18121
P19	0.76808	0.58994	0.00498	-0.34758	-0.5860729	-0.36515
R1	0.77125	0.59482	0.00488	-0.24339	-66.59296	-0.13502
R5	0.77334	0.59806	0.00324	-0.04100	-89.42540	-0.14051
P14	0.77595	0.60209	0.00403	-0.34826	-0.6207471	-0.13809
P11	0.78025	0.60879	0.00670	0.08220	-0.1170208	-0.09947
R7	0.78286	0.61286	0.00407	0.27989	-206.2611	-0.16860
P1	0.78459	0.61559	0.00272	0.15225	0.1289194E-01	0.14495
P2	0.78845	0.62165	0.00607	-0.09371	133.2106	0.23440
P15	0.79097	0.62564	0.00398	0.14235	0.2871685	0.10772
P6	0.79229	0.62772	0.00208	-0.10624	-3.756373	-0.09970
P20	0.79302	0.62889	0.00117	0.24010	-1.272072	-1.09761
P10	0.79483	0.63175	0.00287	0.02719	0.4923085	0.83244
P9	0.79895	0.63833	0.00657	0.37017	1774.157	0.61276
R2	0.80013	0.64021	0.00189	-0.08399	-33.94539	-0.06350
R6	0.80071	0.64114	0.00093	0.09609	-17.30075	-0.03508
P21	0.80081	0.64129	0.00015	0.38126	0.1572091E-01	0.37309
P4	0.80089	0.64143	0.00013	0.26812	0.8320429E-03	0.02916
(CONSTANT)					-751.1724	

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